UNIVERSITY OF PENNSYLVANIA

THE SECONDARY SCHOOL POPULATION IN SOME OF ITS SOCIAL AND ECONOMIC RELATIONSHIPS

HERMAN M. WESSEL

A THESIS

IN EDUCATION

PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

PHILADELPHIA
1930

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A study of the secondary school population enrolled in the public secondary schools of Cheltenham Township, Pennsylvania.

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PART I

CHAPTER I

INTRODUCTION

1. Problem and Purpose of the Study

Educators have for a long time felt the need for knowing something about the immediate social and economic environment of the pupils in our schools. In his study published in 1916, Holley[1] pointed out in much detail certain facts showing the relationships between the persistency of children in school and their home conditions. The study by Counts[2] published in 1922, showed that in four American cities, the secondary school population was of a highly selective nature.

This investigation is an attempt along the lines of the above studies, yet more intensively, to survey the social, economic, and educational characteristics of a single secondary school population,—that of Cheltenham Township Public School System. More specifically this study is concerned with questions such as these: What is the distribution of the secondary school group among the grades in the school system? How is it distributed among the curricula which the senior high school offers? What is the home background of the pupils in terms of parental occupations, ethnic origins, parental education, and so forth? What community contacts of a recreational and educational nature do the children have? Of what clubs are they members? What hold does the Church have on them? The Sunday School? The theatre? The movies? Of what library facilities do they avail themselves? What is their intelligence? What are their hopes for future education? For life occupations? How prevalent are physical defects among them? How successful are they in their school work? And finally, are there any significant relationships between any of these characteristics?

---

[1] Holley, C. E. *The Relationship between Persistence in School and Home Conditions.*

[2] Counts, G. S. *The Selective Character of American Secondary Education.*

Answers to questions of this sort should paint a more intimate picture of the secondary school population. It is believed that some of the facts obtained may be of use in evaluating the school curriculum and the program of guidance, and in indicating desirable modifications of them. The value of such information for the purpose of curriculum making is now generally assumed in order that the schools may adapt themselves to local needs.[3]

2. The Problem and Its Limitations

The term, "secondary school population", is defined in this study to include all those pupils enrolled in the combined junior-senior high school of Cheltenham Township at the time of the investigation, and all those boys and girls, twelve years of age and over, who were enrolled in the several elementary schools of the district. Among the sixth grade children studied, only those were included whose chronological ages were twelve years or over during the first half of the academic year in which they were enrolled in that grade. The selection of such an age basis for determining the secondary school population is in accord with the statement of the Commission on the Reorganization of Secondary Education: "such reorganization that secondary education may be defined as applying to all pupils of approximately 12 to 18 years of age".[4]

As a survey study, it was necessary to collect much of the data by means of questionnaires. The questionnaire was constructed so that answers could be made with as little writing as possible.

The information that was used concerning the intelligence, the health, the grades, and the success in school subjects was secured from the office records of the school system.

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[3] Uhl, W. L. *Secondary School Curricula*, ch. 14.
Lull, H. G. and Wilson H. B. *The Redirection of High School Instruction*, ch. 9.

[4] Commission on the Reorganization of Secondary Education—"Cardinal Principles of Secondary Education," United States Bureau of Education Bulletin, 1918, No. 35, 11.

School records were used for checking the ages of the children, and also for checking the occupations of the fathers. For the group of children who did not return the information asked of home, the school data regarding fathers' occupations were accepted.

The questionnaires were distributed to the pupils present in the high school on June 2, 1927, and to elementary school pupils who are included in this study on June 7, 1927. The distribution of the questionnaires was made to all these pupils by their respective home room teachers who had received specific instructions concerning the purpose of the study and the need for careful answers to the questions. Two questionnaires were given to each pupil. The "pupil questionnaire"was filled out under the guidance of the home room teachers. The "home questionnaire" was filled out at home either by the parents or by the child with the aid of the parents. A letter from the high school principal to all parents of the high school pupils, stated the purpose of the study and emphasized its impersonal character. A similar letter was sent by the Superintendent of Schools[5] to all parents of the elementary school pupils included in this study.

Information was collected from 1033 pupils of the school system distributed as in Table I.

TABLE I

NUMBER OF PUPILS FROM WHOM INFORMATION WAS COLLECTED

SCHOOLS	BOYS	GIRLS	TOTAL
Senior High	174	188	362
Junior High	263	283	546
Elementary[1]	79	46	125
Totals	516	517	1033

[1] Those 12 years of age and over.

The numbers of pupils in the senior and junior high schools represent respectively 97.3 per cent and 89.5 per cent of the total enrollment of the schools for the year in which

[5] Samples of the questionnaires, instructions to teachers, and letters used in the collection of the information may be found in the Appendix.

the data were collected. From each of these, a "pupil questionnaire" was collected. A "home questionnaire" was not collected from every pupil. The number and percentages of pupils returning "home questionnaires" follow:

TABLE II

NUMBER AND PERCENT OF PUPILS RETURNING "HOME QUESTIONNAIRES", DISTRIBUTED AS TO SCHOOLS

SCHOOLS	NUMBER	Percent
Senior High	273	75.4
Junior High	436	78.
Elementary	106	84.8
Total	815	78.8

The number and percentage of homes returning questionnaires follow:

TABLE III

NUMBER AND PERCENTAGE OF HOMES REPRESENTED IN THE RETURN OF "HOME QUESTIONNAIRES", BY SCHOOLS

Schools	Total Number of Homes	Number Returning Questionnaires	Pct. Returning
Senior High	327	243	74.3
Junior High	498	390	78.3
Elementary	116	98	84.5
Total	941	731	77.7

The above distributions show that complete returns were secured from over three quarters of the pupils present in the school on the day of the investigation. Over three fourths of the homes of these pupils are represented by the returns.

A sample study was made of one hundred cases selected at random. The object was to develop procedure and technique in working with the material. It was possible through this random study to see the data in miniature, as a whole, and to test out the validity of some of the items, and the significance of others. Thus the diversity of answers to the question concerning parental affiliation with community organizations gave proof of such general misunderstanding of the question as to lead to the elimination of these data from further use. On the

other hand, the significance of the relationship of intelligence quotients with various of the environmental factors, led to its inclusion as one of the major emphases. It seemed clear from this random study that some of the material would lend itself to description of the group as a whole, while some would have more significance for relationship. Emphases and tendencies which showed up strikingly in this sample study, such as the occupational groupings of parents, the racial composition of the population and the relationship of these items with various items of school status, gave form and direction to the study as a whole.

In a questionnaire survey, there is likely to be misunderstanding of questions by both pupils and parents. However, the reliability of the data was attested in a check-up of some of the items already recorded in the school files, for example the occupations of the fathers, and the ages of the pupils. Furthermore, the apparent seriousness with which the pupils handled the questionnaires and the lack of facetiousness in the answers were additional indications of reliability.

All the data collected were not used because of the absence of reliable and valid standards for judging them.

3. Sources of Procedure and Technique

No studies have been found which deal with such a general picture of a high school population as this investigation has for its purpose. It is unnecessary to name all the studies which may be related to one or another of the sections included in this particular study. Reference to some of these will be made in the various sections to which they may show some relationship both in their procedures and in their findings. It is necessary however to mention those studies which have been of value in determining the technique and procedure used in the collection, in the analysis and in the classification of the data.

By means of questionnaires filled out by pupils in the high schools and continuation schools of four American cities,

Counts[6] showed that American secondary education was of a selective nature in that pupils from certain classes in the social and economic life persisted in high school in larger numbers than pupils from other social and economic classes. Children who remained in school were those whose fathers were in the more favored occupational groups, whose intelligence was higher than those who had dropped out, and whose homes may have represented a higher "cultural" (defined by the presence of a telephone in the home) level than the homes of those who were eliminated from the schools. In this investigation the classification of fathers' occupations as used by Counts is the basis for similar classification.

Several studies have been made regarding the nationality of children in school. In practically all of these studies, nationality has been defined in terms of geographic origin, in terms of nativity of the father. In 1919, Mrs. Bessie Bloom Wessel[7] conducted an investigation into the ethnic composition of the population of New London. Further investigations and surveys were made in Woonsocket, R. I., Stamford, Conn., and Providence, R. I.[8]

It is evident that the country of one's birth is not sufficient basis for determining one's ethnic characteristics. Birthplace indicates geographic origin only. It disregards cultural or psychological traits that may differentiate one group from another. A classification based upon father's birthplace solely disregards also the influence of the maternal strains in the family. Recognizing these limitations, Mrs. Wessel has in her several surveys developed a methodology which records not only the maternal and the paternal influences in the racial or ethnic history of a child, but also those of the maternal and paternal grandparents. The ques-

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[6] Counts, G. S. *The Selective Character of American Secondary Education.*

[7] Associate Professor of Sociology at Connecticut College, and Director of the Study of Ethnic Factors in Community Life.

[8] Wessel, Bessie Bloom "Ethnic Factors in the Population of New London," *American Journal of Sociology* July 1929.

Woonsocket, R. I. An Ethnic Survey. In press.

tionnaires used in the Cheltenham investigation contained questions relating to the ethnic origin of the child which were the same as those used by Mrs. Wessel in her more recent ethnic surveys.

A few of the questions on the Sims score card[9] for the measurement of the socio-economic status of school children were suggestive as to form.

4. The Community

Cheltenham Township is an incorporated township, suburban to Philadelphia, situated in Montgomery County. Its area is approximately twelve square miles, and it comprises "fifteen, more or less, distinct communities with a total population estimated to be approximately 17,000."[10]

The village of Cheltenham is one of the oldest of these communities. A shovel mill which has only recently been closed bears the date of its founding, 1774. The original portion of one of the elementary schools in this section bears the date, 1795. Development is just being begun in several sections in the township. Some of the communities may be described as purely residential, with only those business activities of household and drug stores that are needed to serve local neighborhoods. Such are the communities of Oak Lane, Melrose, Elkins Park, and the older communities of Ashbourne and Wyncote. The community of Glenside in the western end of the township and the community of Cheltenham in the eastern end have a larger number of business and industrial places than the others. In addition, the township consists of two communities that are racially distinct from the rest. Just north of the city line of Philadelphia is the negro community of LaMott originally founded to house the servants and domestics of neighboring wealthy residents. North of Glenside is the Italian settlement of Edge Hill.

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[9] Sims, V. M. *The Measurement of Socio-Economic Status.*

[10] Rowland, A. L. Report of Superintendent of Schools to Board of School Directors of Cheltenham Township, 1929, 1.

The United States Census of 1920 gives the township's population as 11,015, and distributes the total number of people ten years of age and over occupied in gainful occupations as follows:

TABLE IV[1]

OCCUPATIONAL DISTRIBUTION OF POPULATION OF CHELTENHAM TOWNSHIP

Occupation	Males	Fem.	Tot.	Pct. of Tot.
Agriculture, forestry and animal husbandry	206	5	211	4.8
Extraction of minerals	24	—	24	.6
Manufacturing and mechanical industries	1232	127	1359	31.
Transportation	311	30	341	7.8
Trade	553	51	604	13.8
Public Service (not elsewhere classified)	43	2	45	1.
Professional Service	231	114	345	7.9
Domestic and personal service	217	659	876	20.
Clerical Occupations	319	253	572	13.1
Total	3136	1241	4377	100.

[1] Data for this table were supplied by the Bureau of Census, Washington, D. C.

In general, one may say that for occupational purposes, Cheltenham Township is a part of the city of Philadelphia. While there is no way of estimating the number of people living in the township whose business or professional activities are carried on in the city to which it is suburban, one who is acquainted with the township knows that a very large portion of the population is not engaged in business within the township. The few industries that do exist may and probably do draw upon the city for their workers as well as upon the township.

The religious life of the community centers in the various churches that exist throughout the township. The churches represent both Catholic and Protestant denominations, but there is no Jewish synagogue or center.

Cheltenham Township as such has no public library under its governmental jurisdiction. The residents of the township have access to public libraries of other communities

that are adjacent to it. Those who live in the village of Cheltenham have access to the Burholme Branch of the Philadelphia Public Library; those who live in the Oak Lane, Elkins Park, and LaMott communities have access to the Oak Lane Branch of the Philadelphia Public Library; those who live in the Wyncote section can avail themselves of the Abington Library at Jenkintown. Private circulating library service is offered to the residents of the township through the various drug stores scattered throughout the community.

The one public recreation center in the township is a war memorial situated in Glenside. This consists of an outdoor swimming pool and a building that is used as a civic center. The residents of the township have access however to the Abington Branch of the Young Men's Christian Association and to other branches situated in that part of Philadelphia adjacent to the township. No amusement parks exist in the township, though the proximity of Willow Grove Park affords the usual type of commercialized park recreation to the people of the township.

There is but one private school in the township,—the Oak Lane Country Day School, in which some children of the township are enrolled. Other adjacent private schools, such as the Abington Friends School at Jenkintown. Penn Charter, Episcopal Academy, and other schools in the city of Philadelphia, enroll some of the township's school population. There are two parochial schools in the township, but no Catholic high school.

By school law of the state of Pennsylvania, Cheltenham Township is classified as a third class school district. Its system consisted in 1926-27 of one Junior-Senior High School, and eight elementary schools. During the year in which this investigation was made, the total enrollment of children in the various schools was distributed as indicated in Table V. Unless specified, the enrollment in each elementary school includes the six elementary grades.

In addition to those enrolled as indicated in Table V, one

hundred and sixty four children were enrolled in kindergartens which were established in the Glenside, Rowland, Wyncote, Myers, and Shoemaker Schools. A total of 2564 children were enrolled in the entire school system.

TABLE V

ENROLLMENT OF CHILDREN OF CHELTENHAM TOWNSHIP AMONG THE VARIOUS SCHOOLS

School	Number
Edge Hill	173
Glenside	248
Heller (grades 4—6)	154
Rowland (grades 1—3)	176
Wyncote	151
La Mott	106
Myers	235
Shoemaker	175
Junior High	610
Senior High	372
Totals	2400

The location of the several schools is shown in Figure 1.

PART II
CHAPTER II

SCHOOL CHARACTERISTICS OF THE STUDENT POPULATION

1. Age-Grade Distribution

The age grade distribution of the pupils surveyed in this investigation is shown by Tables VI and VII. The age interval used is that corresponding to the interval used by the Pennsylvania State Department of Public Instruction in its age-grade tabulations. A glance at these tables shows the wide range of ages in each grade for both boys and girls, and the overlapping of ages from grade to grade. One must bear in mind that pupils below the approximate age of 12 years and 6 months enrolled in the sixth grade were not included in this study. In grades lower than the sixth, all of 12 years of age and over were included. The range of ages and the median for each grade beginning with the fifth is shown in Table VIII. Ranges and medians for those in the grades below the fifth are not included because of the very small numbers involved.

From Table VIII, it will be seen that for each sex, the median age of the 7th grade pupils is lower than for the 6th grade,—more perceptibly so among the girls than among the boys. This is to be explained by the age basis on which the 6th grade pupils were included in this study. The medians show an increase of approximately one year from one grade to the next higher, beginning with the 7th. There is no appreciable difference between the boys and the girls, though with the exception of the 10th grade, the girls' medians are slightly lower than the boys'.

Figure 2 shows graphically the age distribution of children in the sixth, ninth, and twelfth grades. The percentages of children in the sixth grade represented in the graph are based on the total enrollment for the sixth grade for June 1927. It is significant to notice the small amount of overlapping of ages between the ninth and twelfth grades as compared with that between the sixth and ninth grades.

TABLE VI

AGE - GRADE DISTRIBUTION OF BOYS IN THE CHELTENHAM TOWNSHIP PUBLIC SECONDARY SCHOOL POPULATION

Age

Grade	10½	11	11½	12	12½	13	13½	14	14½	15	15½	16	16½	17	17½	18	18½	19	19½	20& over	Total
3				2																	2
4				2	2	1	1	1		1				1							9
5				10	9	3	3	3		3											31
6					1	13	8	6	2	4	1	2									37
7			7	4	11	16	19	11	11	4	4	1									88
8					1	11	22	20	20	5	10	4	2	3							98
9						1	3	5	11	22	15	11	5	2	2						77
10								2	1	3	22	21	14	5	6	5			2	1	82
11											3	5	8	12	9	10	6	1		1	55
12													2	4	7	12	7	3	2		37
Total			7	18	24	45	56	48	45	42	55	44	31	27	24	27	13	4	4	2	516

TABLE VII

AGE—GRADE DISTRIBUTION OF GIRLS IN THE CHELTENHAM TOWNSHIP PU BLIC SECONDARY SCHOOL POPULATION

Grade \ Age	10½	11	11½	12	12½	13	13½	14	14½	15	15½	16	16½	17	17½	18	18½	19	19½	20	Total
3					1																1
4									1												1
5				2	6		4	1	2	1											16
6						11	7	4	3		2	1									28
7	1	1	1	6	25	28	22	6	9	8	1	1									109
8				1	3	8	19	25	12	6	4	1									79
9							4	10	17	32	17	8	5	2							95
10								1	2	5	13	21	12	8	1	3	1	1	1		69
11											3	9	13	18	15	6	4	1			69
12													3	4	14	17	7	1	3	1	50
Total	1	1	1	9	35	47	56	47	46	52	40	41	33	32	30	26	12	3	4	1	517

TABLE VIII

RANGE OF AGES AND MEDIAN AGES OF PUPILS, IN GRADES 5 TO 12, INCL.

Grade	Range of Ages		Median	
	Boys	Girls	Boys	Girls
5*	11.9—15.2	11.9—15.2	12.7	13.
6*	12.3—16.2	12.9—16.2	13.7	13.6
7	10.3—16.2	10.3—16.2	13.5	13.1
8	12.3—17.2	11.9—16.2	14.2	13.11
9	12.9—17.8	13.3—17.2	15.2	15.
10	13.9—21.8	13.9—19.8	16.1	16.1
11	15.3—20.3	15.3—19.2	17.2	17.
12	16.3—19.8	16.3—19.8	18.	17.10

* only those included in this study.

Overagenes apparently decreases between the ninth and the twelfth grades to a very large extent. This may be evidence that there is a tendency to eliminate the overage pupils when the end of the compulsory school attendance period has been reached.

The overlapping of ages of the children in the various grades raises questions regarding the social problems that may arise out of such a situation. For purpose of general school guidance, for curricular adjustments, for the development of the social program of the school, the overlapping of ages calls attention to the potential differences among the children in respect to their individual need, capacities, and interests.

2. Distribution of Pupils among the Curricula in the High School

Cheltenham High School offers to its students a choice of seven curricula: Academic, General, Commercial, Fine Arts, Industrial Arts, Home Economics, and Music. The Cheltenham High School handbook, 1926-27 characterized these curricula as follows:

"Every student who expects to go to college or normal school should take the Academic Curriculum." The General Curriculum "is arranged for students who wish to have

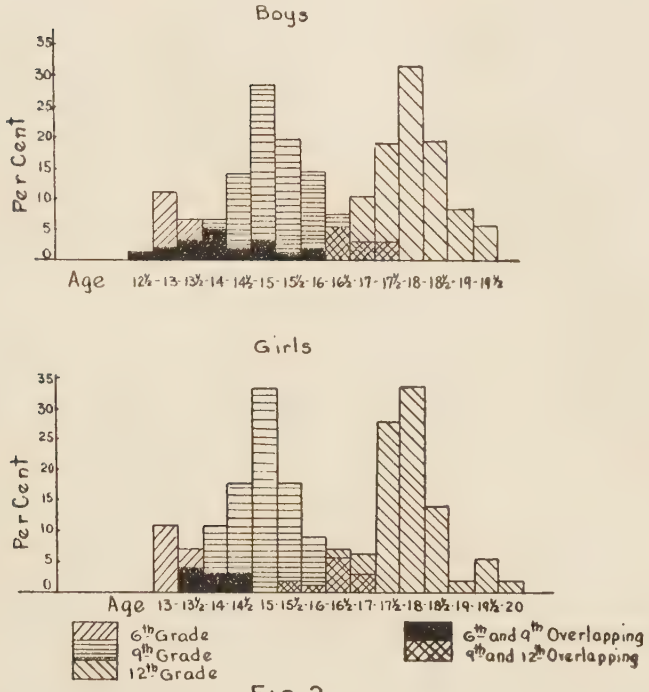

FIG 2

Overlapping of Ages among Boys and Girls in Grades Six, Nine, and Twelve.

a good high school education, but who do not plan to go to college. A wide range of electives may be chosen." By proper electives, however, pupils in the General Curriculum may be admitted to some colleges, and are admitted into the State Teachers' Colleges and Normal Schools of Pennsylvania. The Commercial Curriculum "is planned to prepare students who wish to enter a business life immediately after leaving high school." "Four Curricula in Arts are offered: Industrial Arts, Fine Arts, Music, and Home Economics. In addition to a wide range of electives, students in each of these curricula will be afforded the opportunity of electing ten periods per week in the specific fields of that Curriculum."

These curricula are organized as such only in the senior high school. In the junior high school there is no differentiation of curricula, but provision is made in each grade for elective courses. These courses known as the "Elective Emphases" (the variables in the program of studies) were offered for two periods per week in the seventh and eighth grades, and four periods per week in the ninth.[1]

Because there are no definitely organized curricula in the secondary school grades below the senior high school, the distribution of students among the various curricula applies only to those enrolled in grades ten, eleven, and twelve.

Table IX shows the distribution of the 362 pupils in grades ten to twelve among the curricula of the school. From this table as well as from Figure 3, it can be seen that over half of all the pupils are enrolled in the academic curriculum. Over three-fifths of the boys and slightly less than one-half of the girls are so enrolled. The commercial curriculum has about one quarter of the students enrolled, with more than two girls to one boy. The general curriculum enrolled the third largest number, and drew approximately equal numbers of boys and girls. The practical arts curricula (industrial arts for the boys, and home economics for the girls) constitute the fourth largest group, with over four times as many boys as girls. The fine arts curriculum with a very small enrollment enrolled about seven times as many girls as boys.

Since over half of the students are enrolled in the academic curriculum, and more than 12 per cent in the general curriculum, some of whom may enter institutions of higher learning, the college preparatory function of the high school is a most important one at Cheltenham. The vocational

[1] Beginning with the academic year 1929-30, the elective emphases in the seventh grade were dropped. The required work has been extended to include the subjects of General Language and Junior Business Training. Inasmuch as the subjects of music, fine arts, home economics, and industrial arts have always been required in the seventh grade in addition to the regular academic subjects, the addition of these two previously called electives to the required list makes the seventh grade program of studies one of general exploration.

aims, for which the commercial and the practical arts curricula have been established, are also very important, for 29 per cent of the students are enrolled in these curricula.

TABLE IX

DISTRIBUTION OF BOYS AND GIRLS AMONG THE CURRICULA OF THE CHELTENHAM HIGH SCHOOL. GRADES 10, 11, 12

Curriculum	Boys		Girls		Totals	
	No.	Percent	No.	Percent	No.	Percent
Academic	110	63.2	92	48.9	202	55.8
Commercial	24	13.8	60	31.9	84	23.2
Fine Arts	1	.6	8	4.3	9	2.5
Practical Arts	17	9.7	5	2.7	22	6.1
General	22	12.7	23	12.2	45	12.4
Totals	174	100.	188	100.	362	100.

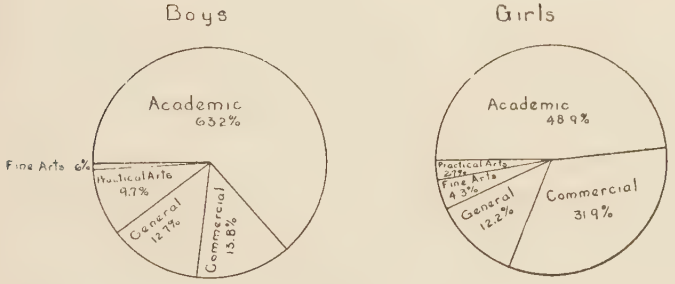

Fig. 3

Percent of Boys and Girls Enrolled in the Curricula of the Senior High School

Table X shows the distribution of the pupils among the curricula of the high school by grades. The distribution shows that over half of the pupils in each of the grades are enrolled in the academic curriculum, and that the percentage of students of the twelfth grade in the academic curriculum is considerably larger than in the two previous grades. The general curriculum has its largest representation of students in the eleventh grade, in that group in which the academic curriculum has its smallest proportion. The commercial curriculum shows a steady decrease in the percentage of students to the total enrollment of the respective

grades. This is likewise true of the practical arts curriculum. The figures seem to indicate that the school program of studies is holding best its pupils who are thinking in terms of further education in institutions of higher rank.

TABLE X
DISTRIBUTION OF PUPILS ON THE BASES OF GRADES AND CURRICULA

Curriculum	Number in Grades			Percent in Grades		
	10	11	12	10	11	12
Academic	85	63	54	56	51	62
Commercial	37	30	17	25	24	20
Fine Arts	3	4	2	2	3	2
Practical Arts	10	8	4	7	6	5
General	16	9	10	10	16	11
Totals	151	124	87	100	100	100

3. Intelligence Quotients of the Secondary School Population

The mental ability of the students included in this study was determined by the intelligence quotients derived from scores on the Terman Group Tests of Mental Ability. For many years it had been the custom of the Cheltenham High School to test all of its pupils by the Terman tests once a year, using the same form of the test in alternate years. Since the fall of 1926, the test has been given to each student once, usually at the beginning of the secondary school period, and to all new students who enter the school. For many of the students included in this study, there were available the results of more than one test. In these cases, the average of the intelligence quotients was taken. In the other cases, the intelligence quotient secured from one test was accepted.[2] No intelligence quotients were available for those sixty students included in this study who were at the time enrolled in the grades below the sixth. Intelligence quotients for twenty-two of the secondary school pupils, in

[2] An unpublished study of the correlation of the quotients of those for whom more than one test had been given was made in 1927 by H. W. Fields, the Assistant Principal in the senior high school. The coefficient of correlation was over .90.

addition to the pupils in grades below the sixth, were missing. The following table shows the distribution of boys and girls on the basis of intelligence quotients.

TABLE XI
INTELLIGENCE QUOTIENTS OF BOYS AND GIRLS

Intelligence Quotients	Boys		Girls		Total	
	No.	Percent	No.	Percent	No.	Percent
Below 70	1	.2			1	.1
70—79	7	1.3	8	1.5	15	1.4
80—89	58	11.2	47	9.1	105	10.2
90—99	88	17.	89	17.2	177	17.1
100—109	120	23.3	145	28.1	265	25.7
110—119	117	22.7	133	25.7	250	24.2
120—129	52	10.1	51	9.9	103	10.
130—139	16	3.1	13	2.5	29	2.8
140—149	4	.8			4	.4
150 and over	1	.2	1	.2	2	.2
Unknown	52	10.1	30	5.8	82	7.9
Totals	516	100.	517	100.	1033	100.
Medians	106.5		106.9		106.7	

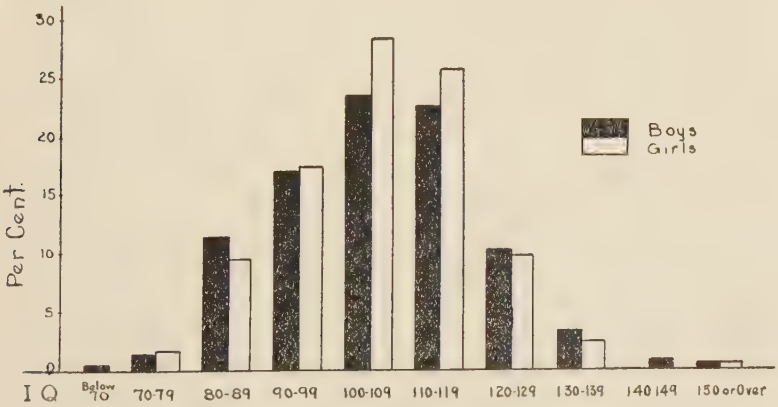

FIG. 4.
Per cent of Boys and Girls in Each Intelligence Group

From Table XI and from Figure 4, it will be seen that the median intelligence quotients for boys and girls are practi-

cally identical. The range of quotients for the boys is 69 to 153, for the girls, 70 to 158. Twenty-five per cent of the boys, the lower quarter, have intelligence quotients below 95.7; another twenty-five per cent, the upper quarter, have intelligence quotients above 111.1. Similarly for the girls, the first quartile is 97.5; the third quartile is 115.1. This means that the middle fifty per cent of the boys have intelligence quotients ranging between 95.7 and 111.1, and the middle fifty per cent of the girls have intelligence quotients ranging between 97.5 and 115.1. In general, however, appreciable sex differences on the basis of intelligence quotients do not exist. This is borne out by the findings of Lincoln[3]: "The data gathered....seem to point rather clearly to the conclusion that significant sex differences do not appear in the results of the intelligence tests now in general use. This applies to group as well as to individual tests, and to performance as well as to the linguistic type of examination."

4. Subject Failures

Data concerning success and failure of the pupils in the subjects of study were collected from the records of the school. The data regarding failures are not confined to the year in which this survey was made, for such a limitation would include many who might be chance or incidental failures. Three years was the span taken upon which to measure the amount of failure for each pupil. This of course eliminates those pupils who were not enrolled in the secondary school for at least this length of time, of whom there were two hundred and three. Of this number, eighty withdrew from school either upon reaching the age of sixteen, or with working papers. References to these pupils will be made throughout the sections dealing with failures. For pupils in the twelfth grade, the three year span ending with the year 1927 was the basis for estimating the amount

[3] Lincoln, E. A. *Sex Differences in the Growth of American School Children,* ch. 3.

of failure; for those in the eleventh grade, the three years ending with the year 1928; and for all others, the three years ending with the year 1929.

A unit of failure was defined in this study as the failure of one five period per week subject for one semester. Only academic subjects and those subjects of a content nature in other curricula were included. In the junior high school, failures in subjects offered less than five periods per week were indicated in tenths of units. For example, a failure in geography, a two period per week subject, was considered as four-tenths of a unit of failure; in vocational civics, a three period per week subject, as six-tenths of a unit.

TABLE XII

NUMBER AND PERCENT OF PUPILS FAILING SUBJECTS OVER A THREE YEAR PERIOD

Units of Failure	Number			Percent		
	Boys	Girls	Total	Boys	Girls	Total
None	152	253	405	46.1	67.5	56.8
Less than One	11	12	23	3.3	3.2	3.2
1—1.9	37	38	75	11.2	10.1	10.6
2—2.9	40	34	74	12.3	9.	10.7
3—3.9	28	19	47	8.5	5.1	6.8
4—4.9	16	9	25	4.8	2.4	3.6
5—5.9	10	5	15	3.	1.3	2.2
6—6.9	8	4	12	2.4	1.1	1.7
7—7.9	10	0	10	3.		1.5
8—8.9	7	1	8	2.1	.3	1.2
9—9.9	5	0	5	1.5		.8
10 and over	6	0	6	1.8		.9
Total failing	178	122	300	53.9	32.5	43.2
Totals	330	375	705	100.	100.	100.

It will be seen, from Table XII, that over a period of three years, 46.1 per cent of the boys and 67.5 per cent of the girls did not fail any subject; that slightly over 11 per cent of the boys and 10 per cent of the girls failed from 1 to 1.9 units over the same period; that approximately 12 per cent of the boys and 9 per cent of the girls failed from 2 to 2.9

units, and so on. No girls failed more than 8 to 8.9 units during this period, while some boys failed more than 10 units. The distribution shows that the girls were much more successful in their school work than the boys. This sex difference is not unlike the findings of Lincoln, who stated that "studies of school marks indicate that, in the judgment of teachers, girls are doing better school work than boys."[4]

Whereas 45.1 per cent of the boys and 67.5 per cent of the girls were successful in all their school work over a three year period, a study of the pupils for the academic year 1926-27 alone shows that 68.7 per cent of the boys and 81.3 per cent of the girls did not fail any subjects. It is significant to note that on either basis, the girls were more successful than the boys. It is also of importance to note that over an extended period of three years, over half of the boys and approximately one third of the girls failed in some subject or other.[5]

Among the 125 elementary school pupils who are included

TABLE XIII
PROMOTION OF ELEMENTARY SCHOOL PUPILS

	Percent Boys	Percent Girls
Promoted	79.7	93.5
Not Promoted	12.6	4.3
Promoted on age	7.7	2.2
Totals	100.	100.

in this study, 69 of the boys and 44 of the girls were promoted into the next grade. Table XIII shows the percentage

[4] Ibid, 103.

[5] Of the eighty students who were not enrolled in the school for at least three years, one half was enrolled in school for less than two years, and one half for two but less than three years. The first group will be designated as Group 1; the second, Group II.

Three fifths of the boys in Group I and over seven tenths of the boys in Group II failed during the time they were enrolled in school. One third of the girls in Group I and three fifths of the girls in Group II failed during their high school attendance.

distribution of this group on the basis of promotion into the next higher grade. As in the case of the secondary school pupils, the evidence points to greater success among the girls than among the boys who were enrolled in the elementary grades.

5. Physical Status of the Secondary School Population

Information regarding the physical defects of the boys and girls included in the investigation was secured from the school's official records. The data on the record cards were those collected at the annual medical and physical examination at the beginning of the school year 1926-27. The examinations were made by the school physician, assisted by the school nurse.

The defects that the medical examination revealed are as follows; defects of dentition, defective hearing, defective heart, malnutrition, enlarged tonsils, defective glands other than tonsils such as thyroid and cervical glands, defective vision, flat feet, defects of posture including round shoulders, and a group called "miscellaneous" in this study. The last group includes such marked bodily defects as affect the victims of infantile paralysis. Among the girls, underweight and overweight were indicated on the records; but overweight was missing from the boys' record cards.

The data concerning the physical defects of the school

TABLE XIV

PERCENT OF BOYS AND GIRLS HAVING PHYSICAL DEFECTS

Number of defects	Boys	Girls
None	44.8	35.2
One Defect	30.4	33.8
Two Defects	17.6	20.5
Three Defects	4.9	7.4
Four "	2.1	2.3
Five "	.2	.6
Six "		.2
Totals	100.	100.

population included in this investigation show that 231 of the boys, and 182 of the girls had no physical defects. A third of the boys and a third of the girls had one defect; approximately one sixth of the boys and one fifth of the girls had two defects; some had as many as five and six defects. Table XIV shows the percentages of boys and girls having physical defects.

The number and percentages of boys and girls who had the various physical defects are shown in Table XV. In many instances the numbers of pupils having each of the defects include those who had other defects in addition. For example, of the 143 boys who had dental defects, 51 had these defects solely, and 92 had dental defects in addition to other defects. Because of the prevalence of overlapping, the percentages indicated do not total to 100, nor do the total numbers of each sex equal the exact numbers of boys and girls included in this study. A study of the

TABLE XV

NUMBER AND PERCENT OF BOYS AND GIRLS HAVING EACH OF THE PHYSICAL DEFECTS

Defect	Boys		Girls	
	Number	Percent	Number	Percent
Dentition	143	27.7	121	23.4
Hearing	2	.4	0	
Heart	3	.6	3	.6
Malnutrition	16	3.1	18	3.5
Tonsils	125	24.2	144	27.8
Glands	40	7.7	64	12.1
Vision	78	15.1	78	15.
Flat Feet	1	.2	1	.2
Overweight[1]			25	4.8
Underweight	2	.4	52	10.
Posture	39	7.5	58	11.2
Miscellaneous	14	2.7	6	1.1

[1] Information lacking for the boys.

foregoing table shows the largest percentage of boys and girls had defects of dentition and tonsils. Approximately one quarter of each sex had each of these defects. Defects

of vision were found among fifteen per cent of the boys and fifteen percent of the girls. Considerably more girls than boys were underweight.

It is not necessary to list every combination of physical defects that was found. In many instances there was only one case of a certain combination. The data revealed that the highest frequencies of combinations were combinations centering around tonsillar, glandular, dental, and visual defects. The tonsillar-dental combination was found on the records of 65 boys and 65 girls. The tonsillar-glandular combination was found recorded for 21 boys and 34 girls. The instances in which combinations of three, four, and more physical defects were found were scattering throughout. Many of these combinations included defective tonsils and other glands. An extreme instance was that of one boy with the combination of dental, tonsillar, glandular, postural, and miscellaneous defects. The extreme case among the girls shows the combination of the following defects: dentition, tonsils, glands, vision, posture, and flat feet.

The presence of physical defects among 55.2 per cent of the boys, and 64.8 per cent of the girls presents challenging situations to the health program of the school. Some of the defects noted at the beginning of the year studied may have been removed. But the prevalence of them thrusts upon the school the burden of developing its health program beyond the mere instruction in physical training and hygiene.

6. Conclusions

1. The median ages of children in the various grades show approximately a year's difference from one grade to another. Considerable overlapping of ages appears between any two successive grades, although the overlapping seems to be less among pupils of the higher grades indicating the possibility of elimination of the overage children.

2. The curricular distribution of pupils in the senior high school indicates that the college preparatory function is a prominent one, and that the vocational aim as set forth by

the commercial and practical arts curricula is of large but secondary importance in terms of the number of pupils affected.

3. No appreciable sex differences exist between the boys and girls in regard to their intelligence as measured by the intelligence quotients derived from the Terman Group Test of Mental Ability.

4. Girls are more successful in their school work than boys. Less than half of the boys and over two-thirds of the girls did not fail any of their school work over a period of three years. Among the pupils below the seventh grade who were included in this study, 93.5 per cent of the girls and 79.7 per cent of the boys were unconditionally promoted.

5. Over one half of the boys and three fifths of the girls have one or more physical defects, chief among which are defects of dentition, glands, and vision.

CHAPTER III

THE HOME BACKGROUND

The home undoubtedly constitutes a most important set of influences in the education of boys and girls. It is practically impossible to learn all of the important aspects of home life. The information that was secured, however, should materially aid in giving a picture of the student population.

1. Parents Living or Deceased

By far the greatest number of pupils had both mothers and fathers living. A small, but almost equal number of each sex were either fatherless or motherless. An almost negligible number had lost both parents. Of the entire group of students, 70 per cent had both parents living, 4.1 percent had either fathers or mothers living, and .6 per cent had neither parent living. Information was not secured from 21.2 per cent of the group.

2. Where the Children Lived

Among the group of students, there were very few who were not living at home. Thirty-eight of the entire number lived with relatives. One boy had been placed by a child placement agency of Philadelphia in a foster home in the township, and was enrolled in the junior high school. Over 96 per cent of the students lived at home, over 3 per cent lived with relatives, and .1 per cent did not answer this question.

3. Ethnic Origins of the Student Population

In any study of social backgrounds of a group, the matter of racial origins seems of major importance. Because of the more limited connotation of the word *racial*, which is more accurately used in the biologic sense, it was discarded in favor of the word *ethnic*. The latter word signifies the

cultural aspect, and it was this type of grouping we wished to observe, rather than the biological or physical strains of the people.

Previous studies have usually classified the "racial stock" or the "nationality" of the school children on the basis of father's birthplace. This method has been used, too, by the United States Bureau of Census in its classification of national groups. However, it is not nativity that one is interested in, as much as it is the cultural traits that differentiate one group from another.

Table XVI shows the distribution of fathers and mothers

TABLE XVI

BIRTHPLACES OF FATHERS AND MOTHERS

Country	Fathers		Mothers	
	No.	%	No.	%
United States	609	59.	642	62.1
England	47	4.4	31	3.
Scotland	9	.9	13	1.3
Ireland	17	1.6	19	1.8
Canada	3	.3	7	.7
Bohemia	3	.3	3	.3
France	1	.1	3	.3
Germany	36	3.5	25	2.4
Hungary	6	.6	4	.4
Italy	36	3.5	30	2.9
Lithuania	5	.5	5	.5
Norway	1	.1	—	—
Poland	4	.4	3	.3
Russia	17	1.6	16	1.5
Sweden	5	.5	—	—
Switzerland	7	.7	2	.2
Turkey	1	.1		
Roumania			4	.4
Austria	1	.1	2	.2
Denmark	1	.1	3	.3
Luxemburg			1	.1
Unspecified	224	21.7	220	21.3
Totals	1033	100.	1033	100.

of the students on the basis of their geographic origins. It will be seen that 59 per cent of the fathers and 62 per cent of the mothers were born in the United States. This large percentage of native born parents together with the percentage of those born in English speaking countries indicates that the problem arising from students coming from foreign language speaking homes is not very great. Twenty countries other than the United States are represented in this distribution. Of these, the British Isles, Germany, Hungary, Italy, and Russia in the order named claimed the largest percentage; the percentage in each case was five or less. Of the foreign born fathers, 69.6 per cent were naturalized citizens of the United Stats; 10.7 per cent were not. Replies were not received from about one-fifth of the group.

In this study, however, an attempt has been made to group the children upon a more comprehensive basis than that of parental nativity. The method used includes two sets of factors. It includes for the first part a statement of the "racial origin" of each child. To secure this information, the child was asked in the "home" questionnaire to give the racial descent of the father and mother. The word "racial" was used on the questionnaires because it was assumed that the popular meaning of this term was not biological but more nearly the cultural that was desired. The word "racial" was used in the questionnaires from which this technique was developed. In the second place, this method asks for the birthplaces of fathers, mothers, paternal, and maternal grandparents. This information was used not in determining nativity, but in determining the number of generations of the family in the United States,—to distinguish the older from the more recent immigrants. Thus a child is classified as not only of a certain "racial" or ethnic stock, but in addition as having any number from zero to six ancestors born in the United States.

The analysis of the data relating to ethnic descent shows two large groups of children,—those who are children of mixed ethnic groups, and those whose ancestry was given as

more homogeneous. The former are classified as *mixed*, the latter are distributed among the several homogeneous stocks mentioned. Ancestry in the United States is indicated in both cases by the number of ancestors who were born in the United States. Because of the wide variety of mixed groups, no attempt has been made to indicate the mixtures, although the original New London study in which this technique was developed analyzed the mixtures into their component groups. Table XVII shows this distribution. It will be seen that 387 pupils were of mixed ethnic

TABLE XVII

NUMBER AND PERCENT OF CHILDREN OF MIXED AND HOMOGENEOUS GROUPS

Ethnic Group	Number of ancestors born in U. S.								Total	Percent
	0	1	2	3	4	5	6	Unsp.		of total
Mixed	27	13	13	40	77	54	157	6	387	37.5
American Unspecified			1			1	21		23	2.2
English	21	4	4	5	9	5	39		87	8.4
German	26	13	8	5	8	3	26	2	91	8.8
Irish	10	4	6	2	4	2	1		29	2.8
Italian	31	4						4	39	3.8
Jewish	21	9	6	3	8	5	5	9	66	6.4
Negro				1			59	15	75	7.2
Lithuanian	5								5	.5
Polish	1								1	.1
Scotch	5								5	.5
Unspecified				2	1	2	20	200	225	21.8
Totals	147	47	38	58	107	72	328	236	1033	100.

origin. Of this number, 27 had no ancestors born in the United States; 13, one ancestor; 13, two; 40, three; and so on. Eighty-seven children were of English origin. Of this group, 21 had no ancestors born in the United States; 4, one; and so on. Attention must be called to the group, "American Unspecified." This includes those who gave their "racial descent" as American. There were twenty-three in this group, of whom two stated that they had less than six ancestors born in this country. The percentage

distribution of the ethnic groups on the basis of the total number of children studied, shows that the mixed group is the largest; the English, second; German, third; Negro, fourth; Jewish, fifth; and so forth. Figure 5 shows these distributions graphically.

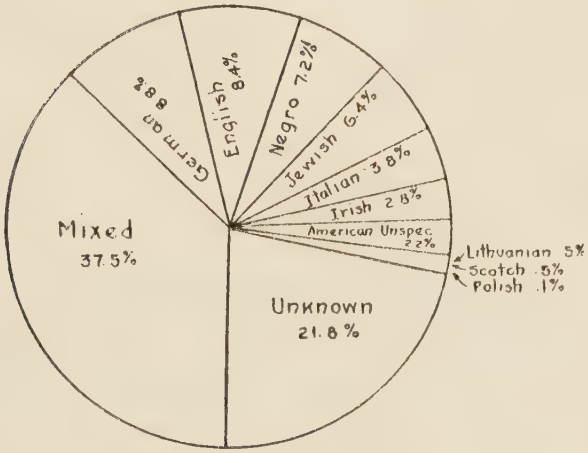

FIG. 5

Proportion of ethnic groups in the secondary school population

Table XVIII indicates the percentage of children of each ethnic group who had zero to six ancestors born in the United States. It indicates that children of mixed ethnic groups, of American Unspecified groups, of English groups, and of the Negro group are largely of third generation parents. The children of the other ethnic groups, save the Germans, are largely of first generation parents. The Germans have an equal percentage of children of first and third generation parents. If one adds to those German children who had no ancestors born in the United States, those who

TABLE XVIII

PERCENT OF EACH ETHNIC GROUP HAVING ZERO TO SIX ANCESTORS BORN IN U. S.

Ethnic Group	Number of Ancestors born in U. S.								Total
	0	1	2	3	4	5	6	Unspec.	
Mixed	6.9	3.4	3.4	10.3	19.9	13.9	40.6	1.6	100.
American Unspec.				4.3		4.3	91.4		100.
English	24.2	4.6	4.5	5.7	10.4	5.7	44.8		100.
German	28.6	14.3	8.8	5.5	8.8	3.2	28.6	2.2	100.
Irish	34.4	13.8	20.7	6.9	13.8	6.9	3.5		100.
Italian	79.4	10.3						10.3	100.
Jewish	31.8	13.7	9.	4.5	12.1	7.6	7.6	13.7	100.
Negro				1.3			78.7	20.	100.
Lithuanian	100								100.
Polish	100								100.
Scotch	100								100.

had but one ancestor born in the United States, the Germans show a larger percentage of newly arrived immigrant parents than of the older immigrants. The children of Lithuanian, Polish, and Scotch parentage, although few in numbers, are all of first generation parents.

4. Occupations of Parents

In his study, "The Selective Character of American Secondary Education," Counts[1] states that "occupation is the central fact in the lives of the great masses of people." As such, it stamps the person with those habits of life, and those traits of personality that color his outlook on life and determine his affiliations with social, economic, and political groups. Accordingly, the analysis of the parental occupations constitutes an important part in the description of the secondary school population.

The classification of occupations used in this study is developed by Counts in the above mentioned investigation. This classification "takes the census classification as a basis, but goes considerably further by breaking up the more

[1] Counts, G. S. *The Selective Character of American Secondary Education*, 21.

complex groups and recognizing certain other groups running directly across the great occupational division of the census."[2] This classification aims "to get classes of reasonable homogeneity from the standpoint of social status, position in the economic order, and intellectual outlook."[2]

In this investigation the occupations of the mothers when they were gainfully employed as well as the occupations of the fathers were secured. It was possible to distribute the mothers' occupations among the classes of occupations as developed by Counts.

The statement of the father's occupation was checked in each instance with the information contained in the school records. Since this information was asked on the "home" questionnaire, and since not all the home questionnaires were returned, the school information regarding the father's occupation was accepted for those not returning the "home" information.

The data regarding the occupations of the fathers and the mothers are shown in Table XIX.

From Table XIX it will be seen that 21.2 per cent of the children are sons and daughters of fathers who are proprietors; 10.6 per cent, of those engaged in managerial occupations; 8.4 per cent of those engaged in commercial service; 7.4 per cent of the professional group, and so on. Figure 6 shows graphically this information. The relatively large percentage, 6.1 per cent of children who have fathers in the agricultural service probably calls for some explanation. The presence of many large estates in the township offers employment to caretakers and gardeners who are included in this class. There are many residents of the township, several of them colored, who, calling themselves landscape gardeners, are employed by contract or on day jobs to care for the lawns and grounds of the more modest group of the township's inhabitants; these too are included in this group. From the foregoing table, it will also be seen

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[2] ibid 22.

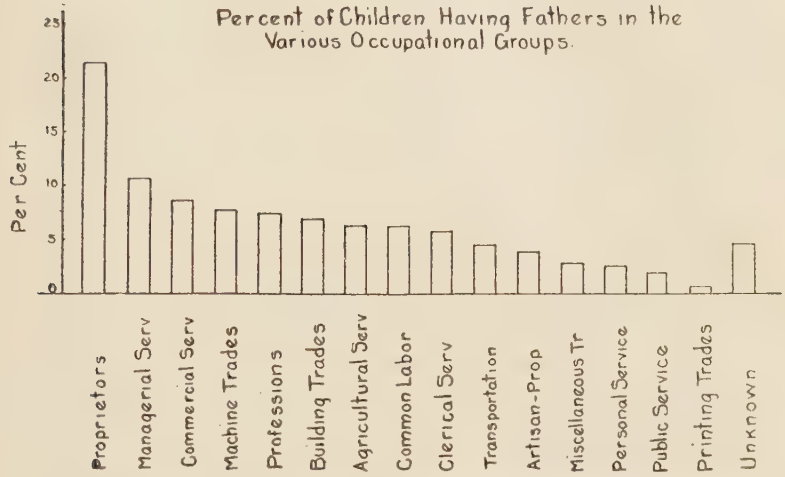
that 66.3 per cent of the pupils have mothers who are not employed outside of the home, and information was not collected from the mothers of 28 per cent of the children. Of those employed, personal service claims the largest percentage of the total, 3.3 per cent. The next highest number are mothers engaged in the miscellaneous trades in manufacturing and the mechanical industries. Eight-tenths of one per cent of the children had mothers so employed. Employment of mothers may indicate a certain professional or business tendency on the part of women to combine motherhood and careers, or it may indicate an economic pressure in the family which forces women to work outside the home. In the case of the student population surveyed it is likely that the latter is the more probable explanation of the larger number of mothers who are working, since the occupations

TABLE XIX
OCCUPATIONS OF FATHERS AND OF MOTHERS

Occupation	Fathers		Mothers	
	No.	%	No.	%
Proprietors	219	21.2	4	.4
Professions	76	7.4	4	.4
Managerial Service	109	10.6	1	.1
Commercial Service	87	8.4	3	.3
Clerical Service	58	5.6	4	.4
Agricultural Service	63	6.1		
Artisan-Proprietor	40	3.9		
Building Trades	69	6.7		
Machine Trades	81	7.8		
Printing Trades	3	.3		
Miscellaneous Trades in Manufacturing	27	2.6	8	.8
Transportation	43	4.2		
Public Service	20	1.9		
Personal Service	26	2.5	34	3.3
Common Labor	63	6.1		
Unknown	49	4.7	290	28.
None			685	66.3
Totals	1033	100.	1033	100.

of personal service and manufacturing trades claim the largest percentages.

FIG. 6.



It is difficult to compare the occupational distribution of the fathers of the secondary school population studied with the occupational distribution of the residents in the township. A rough comparison may be made between two of the census groups and two which appear in this study based on the classification by Counts. Those engaged in professional service and those engaged in personal service would probably be classified the same by these two classifications. By the United States census of 1920, 7.3 per cent of the males of Cheltenham Township were employed in professional service. Of the secondary school population studied, 7.4 per cent are children of fathers in the professional occupations. By the census, 6.9 per cent of the males of Cheltenham Township were employed in domestic or personal service. Of the secondary school population, 2.5 per cent were children of fathers thus employed. It must be remembered that the census tabulation includes all persons employed who are ten years of age and over. A more accurate comparison with the secondary school population

would necessitate an estimate of those people of whom one may expect children of secondary school ages. These comparative figures, however, may indicate that the children of fathers engaged in the professions are represented in the secondary school population in the same proportion as the fathers are represented in the community population. But in the school enrollment the children of the fathers engaged in personal service fall below their fathers' representation in the community.

5. Education of Parents

The education of the parents of the children no doubt exerts an important influence over them and constitutes part of the background in the home life of the children. It may be a factor which determines the cultural environment of the child when he is not in school, as well as an intangible force that is directing the child toward future education and toward an occupation.

The information relating to parental education was asked for in the "home" questionnaires. The validity of these data is limited by two conditions. In the first place, one is inclined to ask whether parents might seek to create a favorable impression by overstating the education they have had. In the second place, the very personal nature of this information brought forth in a few instances a written objection on the questionnaire to the effect that the information was too personal to disclose. It is not likely that parents who have had much formal education would hesitate to say so. It is likely however that those who had little would either refuse to reveal the amount or would overstate it.

Table XX presents the distribution of children on the basis of the education of parents. For instance, thirty one students had both mothers and fathers whose education was less than the complete eight traditional elementary grades; one hundred and sixty four had mothers and fathers who had completed the eight elementary grades; thirty-five had mothers and fathers who had completed the high school;

TABLE XX

NUMBER AND PERCENT OF CHILDREN DISTRIBUTED ON BASIS OF PARENTAL EDUCATION

Mother's Education / Father's Education	Less than Elementary	Elementary School Graduate	High School Graduate	College Graduate	Professional Graduate	Special Trades School	Normal School	Elementary and Trade	High and Occupational	Foreign (Birth)	Unspecified		Total		Percentages
Less than Elementary School	31	19	4			1		2		6			63		6.1
Elementary School Graduate	30	164	19	13	6	3		23	7	28			293		28.4
High School Graduate	6	22	35	18	11	2		18	8	10			130		12.6
College Graduate		2	2	3	1			1					9		.9
Professional School Graduate		2	1		2								5		.5
Special Trades School			2	1		2							5		.5
Normal School		4	8	1	8			6	1				28		2.7
Elementary and Trade School		7	1	3				14	2	3			30		2.9
High School and Occupational		2	5	2	2			6	2				19		1.8
Foreign (Birth)	5	8				2		4	1	131			151		14.6
Unspecified											300		300		29.
Total	72	230	77	41	30	10		74	21	178	300		1033		
Percentages	7.	22.3	7.4	4.	2.9	1.		7.2	2.	17.2	29.				

three, who had completed college; etc. Again, there were thirty students whose fathers had completed less than the eight elementary grades, but whose mothers had completed the elementary grades. There were eighteen whose fathers were college graduates, but whose mothers were high school graduates. Attention should be called to the columns marked "Foreign". This refers to those parents who were not born in this country, and all of whose education was secured in countries other than the United States. The difficulty of evaluating this education in terms of traditional divisions of schools in the United States made it necessary to group these parents separately. For instance, there were twenty-eight students whose fathers were educated in foreign countries, but whose mothers had completed the elementary grades in the schools of this country. An isolated case showed that the father had continued his education in a foreign university, earning his doctorate abroad. His case is included in the group "professional school graduates."

Analyzing this table on the basis of the education of the fathers and mothers separately, rather than as pairs of parents, it will be seen that the fathers of 7 per cent of the children had less than complete elementary school education; the fathers of 22.3 per cent had completed the elementary grades; the fathers of 7.4 per cent had completed high school; the fathers of 4 per cent had completed college, and so on. Similarly, the mothers of 6.1 per cent of the students had less than complete elementary school education; the mothers of 28.4 per cent had completed the elementary grades; the mothers of 12.6 per cent had completed high school; the mothers of .4 per cent had completed college. No students had fathers who were graduates of normal school solely, but 2.7 per cent of the children had mothers who were. In each case where a father had completed normal school, his further education placed him either in the college or in the professional school group.

A study of the percentages shows that information was not secured from approximately 29 per cent of the students,

and that 17.2 per cent of the students had fathers and 14.6 per cent had mothers whose education has been classed as "foreign". Of the remaining students, the largest number had both mothers and fathers whose education was that of a complete elementary school. The mothers of 14 per cent of the students had at least high school education, for of this group .9 per cent were college graduates, and .5 per cent were professional school graduates. The fathers of 14.3 per cent of the students had at least high school education, for of this group, 4 per cent were college graduates, and 2.9 per cent were professional school graduates.

Figure 7 shows graphically the percentage of children whose fathers and mothers had completed various kinds of schools.

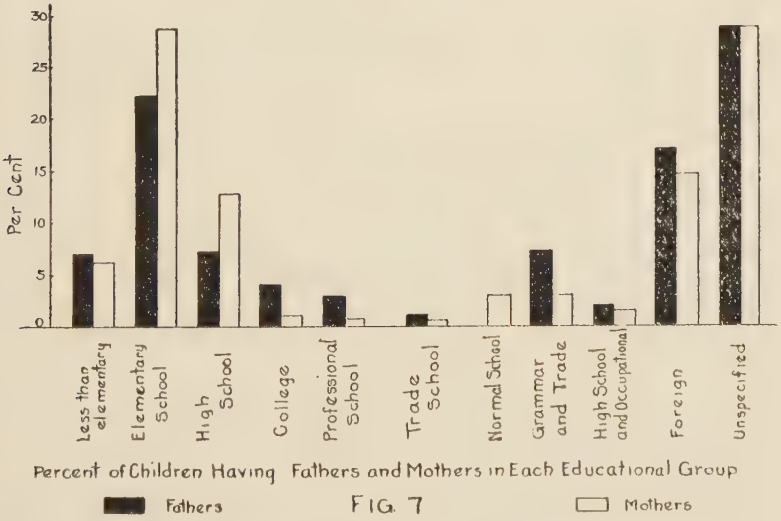


FIG. 7

6. Miscellaneous Information about the Home

Prevalence of servants in the home may not indicate an economic level, but it is a criterion which was suggested as a possible index. Nearly one half of the pupils came from

homes in which no servants were engaged. Fourteen per cent came from homes where one or more servants were employed part time, and twelve per cent came from homes where one or more servants were employed all the time. Information was not received from approximately twenty per cent of the pupils.

The homes of the children are homes in which English is the dominant language. Over 70 per cent came from homes of this type. Of the foreign languages, Italian, German, Lithuanian, and Polish were usually spoken in the homes of respectively 1.7 per cent, .7 per cent, .5 per cent, and .1 per cent of the children. Of the forty-one children who came from homes where a foreign language was usually spoken, the largest number were of Italian origin. Of the thirty-five Italian children from whom this information was obtained, eighteen came from homes where Italian was the dominant language. All of this group were children of foreign born parents. All of the Lithuanian children, (five), came from homes where the native language of the fathers and mothers was the usual one in the home. This group, too, had no parents born in the United States. Of the ninety-one children of German origin, six came from homes where the German language was the usual one in the home. This group had no parents born in the United States. The one Polish child came from a Polish speaking home. Two children of mixed racial origins came from homes where a foreign language was usually spoken. One of these came from a home where German was the language used. This student had three ancestors born in the United States. The other came from a Polish speaking home, and had no ancestors born in this country.

Among the homes of the Jewish children, Yiddish was frequently a language spoken, but it was never stated as the language usually spoken. An occasional questionnaire showed that two or more languages were spoken in the home, in addition to English, the dominant language; but these occasional instances were among the Jewish group, among

whom the language of the country of birth of the parents was spoken in addition to the Yiddish.

While radios were probably less common in 1926-27 than at present, 59 per cent of the children came from homes where a radio was found. Fifteen per cent had no radios in their homes. One may consider the presence of radios in the homes as educational advantages, or one may consider them distractions making difficult home study by the boys and girls. Should the latter be the interpretation, the frequency of homes with distractions of this sort may be a reason for developing a school program calling for workshops and laboratories in which the work of the students shall be carried on within the school day.

The homes of slightly over 80 per cent of the students are homes in which one or more of the Philadelphia daily newspapers, exclusive of the tabloids, may be found. An additional 15 per cent of the students are from homes in which both a Philadelphia daily and a tabloid paper may be found. In the homes of .4 per cent of the students, a tabloid paper is the only one found. In the homes of 1.3 per cent of the students, papers of Philadelphia and other cities may be found. With the exception of one per cent of the students who did not supply information of this question, all the remaining students came from homes where a Philadelphia paper and a foreign language paper were found.

The questionnaires revealed the fact that over one hundred and fifty different magazines were to be found in the homes of the children. No adequate classification of magazines could be found even though attempts were made to secure one from the American Library Association. The various magazines together with the frequency of the ocurrence of each have been listed. The two magazines which were found in the largest number of homes were the Saturday Evening Post and the Ladies Home Journal. These were found in approximately twice as many homes as the magazines with the next highest frequency. In addition to these and to magazines of a similar character the data revealed that the

children had access, in lesser numbers to magazines of a juvenile character such as the American Boy and Youths' Companion, to magazines dealing with current events such as Literary Digest and to magazines of a scientific interest such as Popular Science and the National Geographic. In general, magazines dealing with fiction both juvenile and adult, current events, and popular science were those most frequently mentioned. The following is a list of magazines together with the number of times each was named.

Saturday Evening Post	329	Radio News	10
Ladies Home Journal	322	Dearborn Independent	10
Good Housekeeping	164	Shrine	10
American	156	Motion Picture	10
Literary Digest	151	Physical Culture	9
National Geographic	150	House Beautiful	8
Cosmopolitan	129	Time	8
Liberty	116	Everybody's	8
American Boy	114	Nation's Business	8
Woman's Home Companion	104	Woman's World	7
Pictorial Review	101	Christian Herald	7
Colliers	78	Forest and Stream	7
McCall's	73	Pathfinder	6
Judge	67	Popular	6
Boy's Life	63	Business	5
Popular Mechanics	47	Detective Stories	5
Country Gentlemen	43	Fashion Book	5
Life	40	Harpers	5
House and Garden	34	Scientific American	5
Youth's Companion	34	Vanity Fair	5
True Story	32	World's Work	5
Popular Science	31	Argosy	4
Delineator	28	Farm Wife	4
Red Book	28	Forum	4
American Girl	28	Keystone	4
St. Nicholas	19	Motor Boating	4
Farm Journal	19	Outdoor Life	4
Child Life	18	Rural New Yorker	4
American Mercury	17	Science and Invention	4
Modern Priscilla	17	Scribners	4
Mentor	16	Aviation	3
Nature	16	Baseball	3
PhotoPlay	15	Century	3
Golden Book	15	Children	3
Atlantic Monthly	14	Current History	3
Better Homes and Gardens	14	Farm Life	3
College Humor	14	Forbes	3
Household Journal	14	John Martin's	3
Western Stories	13	Mother's Home Life	3
Vogue	13	Nation	3
Etude	12	Punch	3

Q. S. T.	3	Harper's Bazaar	2
Success	3	Needlecraft	2
Youth	3	New Republic	2
Christian Advocate	2	Open Road	2
Christian Science Sentinel	2	Pennac News	2
Country Life	2	Pencil Points	2
Current Events	2	Peoples' Popular Monthly	2
Everyland	2	Sacred Heart	2
F. D. T. News	2	Short Stories	2
Farm and Home	2	Sportsman	2
Film Fun	2	Tatler	2
Gentlewoman	2	Yachting	2

The following magazines each were mentioned as being in but one home: American Golfer, American Hebrew, American Machinist, American Legion Monthly, Action, Asia, Architectural Forum, Bankers, Bird News, Blue Book, Building Journal, Classic, Columbia, Crisis, Daily Farmer, Designers, Dream World, Far East, Farming, Farm and Friends, Fresian World, Frontier World, Home Life, Horticulture, Hostess, Illustrated London News, Kodaking, L'Illustration, Living Age, Love Stories, Musical America, National Sportsman, Nomad, Our Navy, Picture Play, Screen News, Screenland, Square Deal, Successful Farming, Theatre, Travel, Unity, U.S.Air Service, Wall Street Journal, World Wide.

Possession of library cards by pupils cannot be taken as an index of the use of library facilities, but it does indicate the effort made by pupils to tie up with reading centers. Whether the reading be desirable or not, whether it be much or little, there is no indication. Of the pupils surveyed, nearly three fifths have no library cards at all. Over one third of the pupils have cards in the public libraries in the communities adjacent to Cheltenham Township. Six per cent avail themselves of the private circulating library service furnished by the drug stores in their communities, and four per cent use both the public and the private library facilities. The data showed that the pupils in the upper grades of the secondary school had contacts with public libraries in larger numbers than the pupils in the lower high school grades.

7. Conclusions

1. The children surveyed had, on the whole, both parents living and usually lived at home with them.

2. The fathers of 59% of the children and the mothers of over 62% of them were American born. In terms of ethnic origin traced by racial descent and the number of ancestors born in the United States, the largest number of children were of mixed ethnic groups. Of these the larger number are at least of third generation Americans. Of the homogeneous groups, the largest percentages are children of German and English stocks. In each of these cases an approximately equal number are of first and third generation Americans. This excepts the Negro group. The children of Irish, Jewish, and Italian stocks are largely of first generation American parents.

3. The mothers of approximately 5.7% of the children are employed outside of the home. In most cases this employment is probably the result of economic pressure, for the types of occupations represented by mothers' employment are not the types in which women usually seek careers. Among the fathers of the children who are employed, all occupational groups as classified by Counts, with the exception of miners, lumbermen, and fishermen are represented. The larger number of children have fathers who may be found in the "more favored occupational groups", but a substantial number have fathers scattered among the other groups.

4. The largest number of fathers and mothers of the children had approximately grammar school education. More fathers than mothers were graduates of college.

5. One half of the students came from homes where no servant was employed. About one-fourth of the students supplied no information on this question.

6. English is the language usually spoken in the homes of the children, except in the Italian homes. In this group about one half of the children came from homes where the Italian language was the dominant one.

7. Radios were found in about fifty per cent of the homes.

8. Practically all the homes were homes in which at least one Philadelphia daily newspaper could be found.

9. Magazines most frequently found in the homes were overwhelmingly the Curtis publications. The Literary Digest and the National Geographic were among the six with the largest frequencies. The whole list of magazines represents a very wide variety, and in a greater number of instances a magazine was mentioned only once. Very few of the "quality" group magazines, such as Harpers, Century, and Atlantic were mentioned.

10. Less than half of the students had contacts with public libraries, judged by the possession of library cards. Of these the greater number were in the upper grades of the secondary school.

CHAPTER IV

ACTIVITIES OUTSISDE OF SCHOOL

A picture of the secondary school population of any community ought, if possible, to include some information concerning the activities of the pupils outside of school. The pupils were asked concerning their attendance at movies, theatres, churches, Sunday School, dances, and concerts. They were asked regarding their membership in clubs and secret societies, their employment outside of school after school hours and during vacation, and the lessons which they were taking outside of school.

In some instances the questionnaires gave evidence that there was misunderstanding of the questions. The term "concerts" was intended to apply to the concerts of the Philadelphia Symphony Orchestra or similar organizations. Some pupils of the Cheltenham Junior-Senior High School are regularly excused to attend the children's concerts of the Philadelphia Symphony Orchestra. The answers to this question among the children in the elementary grades and among the children of Negro parents raised suspicion as to the children's interpretations of the word "concert". "Dances" too were interpreted to include attendance at dancing school or dancing classes, for a number of the younger children answered this question affirmatively.

1. Attendance at Movies, Theatres, Concerts and Dances

Information regarding the attendance at movies, theatres, concerts, and dances was secured on the following time distribution: never, once a week, more often, less often. These data are shown in Table XXI. The analysis of the table shows that a larger percentage of the elementary school children reported non-attendance at all of these activities than the percentage of the junior and senior high school pupils. This was true of both the boys and the girls. Attendance at movies was the one activity which was listed

by the largest percentage of pupils in all the grades. However, the percentage of pupils attending the movies once a week or more often showed no appreciable difference among the various grades. In the case of attendance at the movies the boys attended in larger numbers than the girls.

In view of the fact that so great a percentage of children in all grades attend the movies, a check was made on the type of movies that were shown during the first six months of 1927 in the moving picture houses in Cheltenham Township and adjacent to it. A survey of newspaper files for this period was made. Of the eighty-three different pictures checked by this newspaper sampling, six were listed as "good" or better for children under 15 by the "Educational Screen"; thirteen were listed as "good" or better for persons from 15 to 20 years of age. By far the largest number of pictures were considered by the estimates in the "Educational Screen" as unfit for both these age-groups.[1]

Attendance at theatres showed much variation among both the boys and the girls of the different grades. Approximately three fifths of the elementary school children said that they never attended the theatre. Approximately one fourth of the junior high school pupils and between ten and fifteen per cent of the senior high school pupils reported that they never attended the theatre. Weekly attendance at the theatre was reported by only a small percentage of both the boys and the girls in all the grades. Over three fifths of both the junior high school boys and girls reported attendance at the theatre at one time or another. Over three fourths of the senior high school boys and girls reported attendance at the theatre at one time or another.

The data regarding attendance at concerts were very similar to those of attendance at theatres. The largest percentage of students in all the grades who attended concerts reported their attendance less often than once a week. The largest percentages of pupils attending concerts were among

[1] This newspaper survey and subsequent check was made by one of the writer's pupils as a project in connection with social science work.

TABLE XXI

PERCENT OF BOYS AND GIRLS ATTENDING MOVIES, THEATRES, CONCERTS, AND DANCES

Boys							Girls						
Grade	Never	Once a Week	More Often	Less Often	Unspecified	Total		Never	Once a Week	More Often	Less Often	Unspecified	Total
							Movies						
Elementary	8.8	45.6	7.7	32.9	5.	100.		26.1	26.1	13.	34.8	0.	100.
Junior High		37.6	19.3	42.2	.9	100.		3.2	31.8	10.9	52.3	1.8	100.
Senior High	.6	40.8	18.4	40.2		100.		4.2	30.9	10.1	53.2	1.6	100.
							Theatres						
Elementary	58.2	3.8		29.1	8.9	100.		65.2	4.3		26.1	4.4	100.
Junior High	25.5	2.6	.8	66.1	5.	100.		24.8	4.2	.7	67.5	2.8	100.
Senior High	14.9	3.5	2.3	75.8	3.5	100.		11.2	2.7	1.6	80.3	4.2	100.
							Concerts						
Elementary	50.6	1.3	1.3	32.9	13.9	100.		54.3	2.2	4.3	30.4	8.8	100.
Junior High	25.9	2.6	.4	65.4	5.7	100.		14.8	3.9	3.6	73.5	4.2	100.
Senior High	11.5	2.3	2.3	78.1	5.8	100.		5.3	3.7	1.1	86.2	3.7	100.
							Dances						
Elementary	82.3			6.3	11.4	100.		87.0			8.6	4.4	100.
Junior High	77.2	.4	.8	19.	2.6	100.		64.6	2.4	.4	31.8	.8	100.
Senior High	39.6	5.2	3.4	47.2	4.6	100.		26.1	5.3	1.6	64.9	2.1	100.

TABLE XXII

PERCENT OF BOYS AND GIRLS ATTENDING CHURCH AND SUNDAY SCHOOL

Boys	Never	Once a Month	More Often	Less Often	Unspecified	Total	Girls	Never	Once a Month	More Often	Less Often	Unspecified		Total
Grade							Church							
Elementary	11.4	15.2	62.	6.3	5.1	100.		17.4	13.	56.5	10.9	2.2		100.
Junior High	5.7	9.9	62.4	20.5	1.5	100.		4.2	8.8	73.5	12.4	1.1		100.
Senior High	1.7	7.5	67.8	20.7	2.3	100.		3.2	3.2	85.6	6.9	1.1		100.
							Sunday School							
Elementary	13.9	8.9	63.3	7.6	6.3	100.		23.9	4.4	60.8	8.7	2.2		100.
Junior High	14.1	1.5	76.8	6.5	1.1	100.		10.9	1.8	82.3	4.2	.8		100.
Senior High	17.8	6.3	63.8	9.8	2.3	100.		18.2	1.6	70.2	9.	1.		100.

the pupils of the senior high school, and girls were more numerous than the boys. The lowest percentages were among the pupils of the elementary grades with very little difference between the boys and girls.

The largest percentages of pupils attending dances were among the older pupils. Over four-fifths of the elementary school pupils and over a half of the junior high school pupils reported that they never attended dances. Junior high school girls attended dances in greater numbers than junior high school boys. A similar tendency was found among the senior high school girls. By far, the largest number attending dances recorded their attendance less often than once a week. Over a third of the senior high school boys and over one-fourth of the senior high school girls reported that they never attended dances.

In view of the above data relating to attendance at movies, theatres, and concerts one wonders to what extent the school program might be modified to provide more directly for these leisure activities. Standards of appreciation of movies, of plays, of concerts probably ought to be considered as proper objectives in the school program.

2. Attendance at Church and Sunday School

The data in regard to attendance at church and Sunday School were secured on the following time distribution: never, once a month, more often, and less often. These data are shown in Table XXII. A very large percentage of both boys and girls attend both church and Sunday School. Among the elementary school group, a larger percentage reported non-attendance at both church and Sunday School, than of the junior and senior high school groups. Approximately three fourths of the boys of all grades attend church and Sunday School once a month or more often. About 70 percent of the girls in the elementary grades attend church once a month or more often. Over four fifths of the girls in the junior high school and over nine tenths of the girls in the senior high school attend church once a

month or more often. In general, junior high school pupils attended Sunday School in greater numbers than senior high school pupils. For the entire group of pupils the data show that the religious institutions in the community have a very strong hold upon pupils of the school, and suggest that religious instruction within the school is not of immediate importance.

3. Membership in Clubs, etc.

Membership in clubs and other social organizations is of importance in the social education of the child. Among the boys and girls, about one half of each indicated in their replies that they belonged to no club organization of any kind outside of school. This immediately raises the question of the importance of the social program in the high school.

The clubs in which membership was indicated included a variety of interests and activities. There were boy scouts and girl scouts, secret fraternities and sororities. Some clubs were outgrowths of the church and Sunday School. Others, like bird clubs and nature clubs, indicated a scientific interest. Music clubs, including the harmonica clubs, attracted a few pupils. Athletic clubs, including contacts with country clubs of which there are several in Cheltenham Township and adjacent communities, were named by a small percentage of students. A small group named such clubs as Bridge clubs, Five Hundred clubs, and other clubs centering around card games with social objectives as their primary aims.

The tabulation of the data showed that church clubs, scouts, and secret societies enrolled the largest percentages of the pupils. Fourteen per cent of the boys and thirty-three per cent of the girls were members of church clubs alone. Sixteen per cent of the boys, and six per cent of the girls were members of the Scouts alone. About four per cent of the boys and two per cent of the girls were members of secret societies alone. These were pupils who were, with one or two exceptions, enrolled in the senior high school. Of all

the senior high school students, thirty-one per cent of the boys, and 12.8 per cent of the girls were members of secret societies.

These figures, however, do not tell the whole story, for many of the boys and girls were members of two or more clubs. On this basis, about 24 per cent of the boys and 41 per cent of the girls were members of the Church clubs and one or more other clubs; 19 per cent of the boys and 13 per cent of the girls were members of the Scouts and one or more other clubs; 13 per cent of the boys and 5 per cent of the girls were members of secret societies and one or more other clubs. These results compare favorably with the findings of Terry, who concluded that "juvenile organizations of the church attract a larger number of pupils than do all the other groups combined. . . The second most popular group is that of the non-sectarian character building organizations."[2]

4. Employment outside of School

Boys and girls of secondary school ages are frequently employed after school hours and during vacation. Of the group studied, over 85 per cent of the girls and over 41 per cent of the boys were not employed at all. Among the boys who were employed, 6.8 per cent worked after school hours, 27.7 per cent worked during vacations, and 23.6 per cent worked both after school hours and during vacations. The girls showed a very much smaller percentage of such workers; 3.9 per cent worked after school hours, 6.4 per cent worked during vacations, and 4.2 per cent worked both after school hours and during vacations.

It was impossible to classify the occupations engaged in by both the boys and the girls. The boys named such jobs as caddy, clerk in grocery stores, errand boys, carpenters' helpers, farm helpers, camp counsellors, florist helpers, mail carriers, ice men, and so forth. The girls named occupations

[2] Terry, Paul W. *"Social Experiences of Junior High School Pupils"*, School Review XXXV: 194-207; 272-80, March, April, 1927.

such as, mothers' helpers either in their own homes or in the homes of others, mill workers, tutors, and so forth.

5. Lessons outside of School

About three fourths of the boys and over half of the girls reported that they were not taking lessons of any kind outside of school. Of those who reported taking lessons outside of school, the largest number were engaged in taking music lessons. Nineteen per cent of the boys and 32 per cent of the girls were studying either instrumental or vocal music solely. Combining this group with those taking other lessons in addition to music, there were 20 per cent of the boys and 40 per cent of the girls who took some form of music lessons. Athletic and dancing lessons only were taken by three per cent of the boys and 2 per cent of the girls. When combined with other lessons taken, athletic lessons were taken by four per cent of the boys and by 7 per cent of the girls; dancing lessons were taken by 3 per cent of the boys and 6 per cent of the girls. Dramatic lessons, including elocution, were taken by .4 per cent of the boys and 2 per cent of the girls. An occasional pupil was engaged in taking foreign language and art lessons.

6. Conclusions

1. Attendance at movies was very common among both boys and girls of all the grade groupings. Boys attended them more frequently and in larger numbers than the girls. Theatres and concerts were attended by comparatively few children, although the older children showed higher percentages attending each of these than the younger children. Dances were attended by girls in larger numbers than by boys. The senior high school pupils showed the largest percentages attending dances, and the girls in larger numbers than the boys.

2. The Church and the Sunday School have a very strong hold on the pupils of both sexes and of all grades. The older children attended Church in greater numbers than the

younger; the latter attended Sunday School in greater numbers than the older.

3. Both boys and girls belonged to clubs outside of school, although these were a minority of the pupils enrolled in the school. The Scouts, secret societies, and church clubs, were the organizations to which the larger numbers of boys and girls belonged.

4. Over half of the boys and less than fifteen per cent of the girls were employed in some wage-earning jobs after school hours and during vacations.

5. Music lessons were taken by a minority of the pupils enrolled. This group however was the largest one of any taking lessons outside of school. In general, the girls take lessons outside of school in much larger numbers than the boys.

CHAPTER V

PLANS FOR THE FUTURE

Pupils' plans for the future were secured from answers to such questions: "Do you expect to graduate from high school?" "Do you expect to continue your education after leaving high school?", and "Have you decided what occupation to enter?". The permanence of children's interests in matters of further education and occupation has not been established. Franklin in his investigation[1] found that "the gross distribution of vocational choices among the several occupational groups is practically constant for the four periods studied." Children's hopes and wishes, however transitory, are useful in developing programs of guidance in the schools, and often become the dynamic forces motivating pupil reactions, attitudes, and behavior in the schools.

1. Expectation to Graduate from High School

Table XXIII shows the number and percentages of boys and girls who expect to graduate from high school.

TABLE XXIII
EXPECTATION TO GRADUATE FROM HIGH SCHOOL

	Boys		Girls		Total	
	No.	Percent	No.	Percent	No.	Percent
Graduate	443	85.7	457	88.4	900	87.1
Not graduate	65	12.6	45	8.7	110	10.6
Undecided	5	1.	7	1.3	12	1.2
Unspecified	3	.7	8	1.6	11	1.1
Totals	516	100.	517	100.	1033	100.

From this table it will be seen that over four-fifths of the boys and girls expect to graduate from high school, 85.8 per cent of the boys and 88.4 per cent of the girls. Of those who did not expect to graduate from high school, forty-six boys and thirty-one girls gave their reasons. These reasons are presented in Table XXIV.

[1] Franklin. E. E. *Permanence of Vocational Interests of Junior High School Pupils.*

TABLE XXIV
REASONS OFFERED FOR NOT GRADUATING FROM HIGH SCHOOL

Reason	Boys		Girls		Total	
	No.	Percent	No.	Percent	No.	Percent
Dislike for school	6	13.	4	13.	10	13.
Desire for work	21	45.6	15	48.4	36	46.7
Poor scholarship	4	8.7	2	6.4	6	7.8
Overage	2	4.4	1	3.3	3	3.9
Home finances	3	6.5	2	6.4	5	6.5
Needed at home			2	6.4	2	2.6
Child needs to work	2	4.4			2	2.6
Art, Trade, Comm. School	4	8.7	5	16.1	9	11.7
Private Preparatory School	4	8.7			4	5.2
Totals	46	100.	31	100.	77	100.

It will be seen that of those who gave information relating to causes for not completing high school, the largest number stated a desire to go to work. This was true of both sexes. The next largest group expressed a dislike for school, which may be a negative statement of their desire to go to work. A significant number expressed a desire to leave high school before graduation in order to attend other schools. Over seven per cent of the number estimated their own failure to do school work, while an additional 3.9 per cent expressed the same idea in terms of overageness. Almost 12 per cent of this group of seventy-seven gave as reasons statements which may be interpreted as economic pressure in the home. To what extent the economic pressure in the home might have been the real reason underlying some of the other statements, there is no way of determining. The number of those who do not expect to graduate from high school together with the reasons which seventy per cent of the group offered seems a sufficient basis to warrant an intensive personal study on the part of the school counselors.

2. Expectation to Continue Education after Leaving High School

The criticism which was directed against the validity of the data regarding expected graduation from high school

may be directed against the data regarding expectation to continue education after leaving high school. In analyzing the data on this question, it was evident that misunderstanding existed on the part of many of the pupils. Some interpreted the question to mean a continuation of education after graduating from high school; others, to mean a continuation of education upon leaving high school even before graduation. However, the data on this question are shown in Table XXV.

TABLE XXV

EXPECTATION TO CONTINUE EDUCATION AFTER LEAVING HIGH SCHOOL

	Boys		Girls		Total	
	No.	Percent	No.	Percent	No.	Percent
Continue education	325	63.	291	56.3	616	59.6
Not continue education	172	33.3	190	36.7	362	35.
Undecided	5	1.	12	2.3	17	1.7
Unspecified	14	2.7	24	4.7	38	3.7
Totals	516	100.	517	100.	1033	100.

Sixty-three per cent of the boys and 56.3 per cent of the girls expect to continue their education after leaving high school. For nearly three-fifths of its pupils, the school must serve as a preparatory agency for institutions of higher learning. This, of course, assumes that those who expect to continue their education are in the group who expect to graduate from high school. It also assumes that those who stated their expectation as such will go on into higher educational institutions. In view of the fact that more girls than boys expect to graduate from high school, it is worth while noting that among those who are expecting to continue education after leaving high school, the boys outnumber the girls by approximately seven per cent.

The kinds of further education named by both the boys and girls included a wide variety. The largest group of each sex named a college or an institution of collegiate rank. This group included slightly less than fifty per cent of the boys, and slightly less than forty per cent of the girls. A com-

mercial college was named by less than ten per cent of the boys, and by more than twelve per cent of the girls. The girls outnumbered the boys, twenty to one, in naming the normal school, and almost nine to one in naming the art school. The institutions named by the boys in order of frequency were college, commercial school, night school, (a rather indefinite term), and trade school. Among the girls, the institutions named in order of greatest frequency were college, normal school, commercial school, and art school. In addition, boys named aeronautical schools, military colleges, music schools, and preparatory schools. Girls in small numbers named institutions such as night schools, preparatory schools, trade schools, library schools, schools for nurses, and schools for occupational therapy.

3. Occupational Preferences

In classifying the occupational choices named by the students, the classification of Counts was used. The classification developed by Counts antedated the notable achievement of Lindbergh, and this classification does not include in any of its groups the occupation of aviator. Stirred perhaps by the hero-worship which accompanied and followed the flight of Lindbergh in the spring of 1927, some of the boys in the group named aviation as their choice of an occupation. In this study, aviation is included in the group, "Transportation service", because of its greater similarity to the occupations listed by Counts in this group than to the occupations of any other group.

The occupations named as the choices of the boys and girls are shown in Table XXVI. The choices given cannot be accepted as final and permanent. They do indicate, however, the state of mind of the pupils and the type of students with whom the school deals. The information secured has value also in the administration of the guidance program and in the school curriculum.

TABLE XXVI

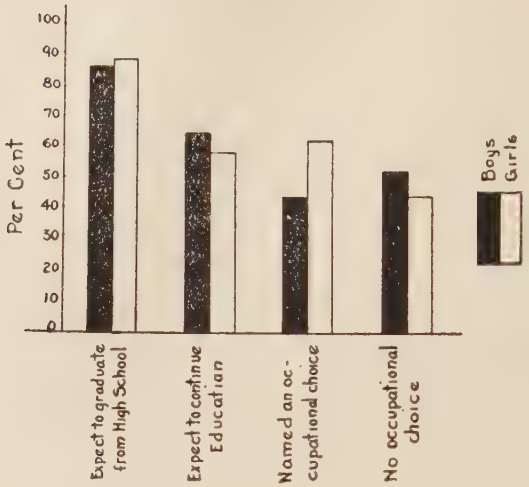
OCCUPATIONAL CHOICES NAMED BY BOYS AND GIRLS

Occupation	Boys		Girls		Total	
	No.	%	No.	%	No.	%
Proprietors	2	.4			2	.2
Professional Service	109	21.1	158	30.6	267	25.9
Managerial Service	15	2.9			15	1.5
Commercial Service	15	2.9			15	1.5
Clerical Service	15	2.9	125	24.2	140	13.5
Agricultural Service	8	1.5			8	.8
Building Trades	30	5.8			30	2.9
Machine Trades	12	2.3	1	.2	13	1.2
Printing Trades	4	.8			4	.4
Miscellaneous Trades in Manufacturing	4	.8	23	4.5	27	2.7
Transportation Service	13	2.5			13	1.2
Public Service	2	.4			2	.2
Personal Service	1	.2	5	1.	6	.6
Common Labor	1	.2			1	.1
No Choice	270	52.3	193	37.3	463	44.8
Unspecified	15	2.9	12	2.2	27	2.5
Totals	516	100.	517	100.	1033	100.

The foregoing table shows that a majority of the boys and over one third of the girls did not name an occupational choice. Of those who named an occupation, the largest single group named professional service. This is true of both sexes. Among the boys, the second largest group named occupations included in the group "Building Trades". Among the girls, the second largest group named the occupations of clerical service. A striking sex difference appears in the table in that some boys chose an occupation in each of the occupational groups; the girls' occupational choices were limited to five occupational groups. This is probably indicative of the narrow opportunity for girls' services as compared with the opportunities presented to boys. Figure 8 indicates the tendency of boys and girls in terms of future plans.

4. Conclusions

1. Almost ninety per cent of the boys and girls expect to



Percent of Boys and Girls Expressing Future Plans

FIG. 8

graduate from high school. Of those who do not expect to graduate from high school seventy seven students stated their reasons. Almost one half of each sex stated a desire to go to work as their reason for not graduating.

2. Over one half of the group expect to continue their education after leaving high school. A larger percentage of boys expect to continue their education after leaving high school than girls. Although both boys and girls named many kinds of further education the largest percentage named a college or institution of collegiate rank. About one tenth of each sex indicated desires to continue education in a commercial school. The girls outnumbered the boys about twenty to one in naming a normal school.

3. Over one half the girls and less than one half the boys named an occupational choice. The boys' choices were spread among all the occupational groups. The girls' choices, due no doubt, to the narrow opportunity for service were limited to five occupational groups. The largest single group of each sex named an occupation of a professional nature.

PART III

CHAPTER VI

STATUS IN SCHOOL AND OTHER FACTORS

It would be impossible to show all the relationships that might exist between any one of the conditions which have been described and others. The relationships selected were revealed by the sample study as having importance for the school curriculum and program of guidance. The various educational characteristics have been taken as bases, with which have been related certain of the factors, namely: intelligence quotients, occupations of the fathers, and ethnic origins of the children. These are generally accepted indices of group classifications.

1. Grade in School and Intelligence Quotients.

Table XXVII shows the intelligence quotients by grades. As pointed out previously, no intelligence quotients were available for the children below the sixth grade. The table shows a wide range of intelligence quotients among the children of each grade. With the exception of the children in the sixth grade, the median quotients of the children of all the other grades show very little variation. The median quotient of 89 for the sixty-five sixth grade children is probably to be expected, for these children were included in this investigation because their chronological ages placed them within the secondary school group. They represent the over-age or retarded group remaining in school at that point. The greatest variation among the median quotients is between that of the tenth and that of the eleventh grade. The medians remain uniform through grades eight, nine, and ten. On the basis of mental capacity as measured by the Terman tests, there do not seem to be very great differences among the pupils of one grade and another, for all the medians fall within the group 105—110. Figure 9 shows these data graphically. There is no intelligence quotient

TABLE XXVII

DISTRIBUTION OF PUPILS OF THE VARIOUS GRADES ON BASIS OF INTELLIGENCE QUOTIENTS

Intelligence Quotients	Grades 3	4	5	6	7	8	9	10	11	12		Total
Below 70 — (69)				1								1
70 — 79				8	4	2	1					15
80 — 89				26	23	15	16	13	9	3		105
90 — 99				14	37	33	33	32	14	14		177
100 — 109				11	57	51	48	34	38	26		265
110 — 119				4	41	46	50	40	41	28		250
120 — 129				1	18	24	18	16	18	8		103
130 — 139					13	4	5	5	2			29
140 — 149					1	1	1	1				4
150 and above					1	1						2
Unknown	3	10	47		2			10	2	8		82
Total	3	10	47	65	197	177	172	151	124	87		1033
Med. Intelligence Quotients				89.	105.9	107.5	107.5	107.5	110.	108.7		106.2

below 80 in the senior high school, and the highest quotients are found in the junior high school grades.

Although very little variation is seen among the various median intelligence quotients of the pupils in grades seven to twelve inclusive, a study of the middle fifty per cent of each grade shows that the middle fifty per cent of students in the eleventh and twelfth grades have on the whole higher intelligence quotients than the middle fifty per cent of students in the other school grades. Table XXVIII shows this distribution. The low range for the pupils in the sixth grade is to be explained by the overage and retarded character of this group. Very little differences are seen among the ranges of the students during the first four years of the secondary school period. The evidence points to the conclusion that on the basis of intelligence, the pupils in the last two years of the high school are more highly selected than those in the early secondary school years. This is not unlike the general conclusions of Book[1] who found that "high school seniors . . . . are a select group of young people."

TABLE XXVIII

INTELLIGENCE QUOTIENTS OF THE MIDDLE FIFTY PER CENT

Grade	Intelligence Quotients
6	82.8—101
7	95.9—116.2
8	98.2—116.9
9	97.9—116.2
10	96.9—116.7
11	101.9—117.5
12	101. —116.8

2. Grade Distribution and Ethnic Origins

The ethnic origins of the children in the various grades are shown in Table XXIX. In this table, and in subsequent ones in which ethnic origins are related to other factors, the children of each ethnic group are not subdivided according

[1] Book, W. F. *The Intelligence of High School Seniors,* 293.

ing to chronological age ought to be in the secondary school, but for one reason or another are retarded.

2. *Those children in the seventh grade.* It is assumed that these children are normal progress children, although there is overageness and underageness in this grade. However this group includes all those who still fall within the grasp of the compulsory school law. This is the beginning of the secondary school period.

3. *Those children in the twelfth grade.* This group includes no one under 16 years of age. Thus it may be assumed that these are the ones for whom the high school had a real meaning, and who achieved success in school work.

TABLE XXX

PERCENT OF EACH ETHNIC GROUP IN THREE SCHOOL GRADES

Ethnic Group	Below 7th Grade	7th Grade	12th Grade
Mixed	21.6	39.1	43.7
American Unspecified	2.4	2.5	
English	7.2	7.6	11.5
German	10.4	11.2	12.6
Irish	4.8	2.	2.3
Italian	18.4	4.1	2.3
Jewish	1.6	6.1	9.2
Negro	16.8	10.2	1.1
Lithuanian	.8	1.	
Scotch	.8		
Polish	.8		
Unknown	14.4	16.2	17.3
Totals	100.	100.	100.

From Table XXX it will be seen that the percentages of each ethnic group vary considerably among these three school grades. The children of mixed racial stocks, of English, German and Jewish origins show a marked increase in the percentage of the total enrollment of the twelfth grade over the corresponding percentage of the total enrollment in the seventh grade. The children of Italian and Negro groups show a considerable decrease in the percentages of

the seventh and twelfth grade enrollments. This may be due either to the tendency of certain ethnic groups to be eliminated from school or it may be due to the changing ethnic complexion through which a suburban community passes as its population increases. Figure 10 shows graphically the percentages of the several ethnic groups in the seventh and twelfth grades.

All ethnic groups are represented among the children in the grades below the seventh. Of the homogeneous ethnic groups, the Italian, German and Negroes have the largest percentages, together constituting 45.6 per cent of the total number of these "retarded" children.

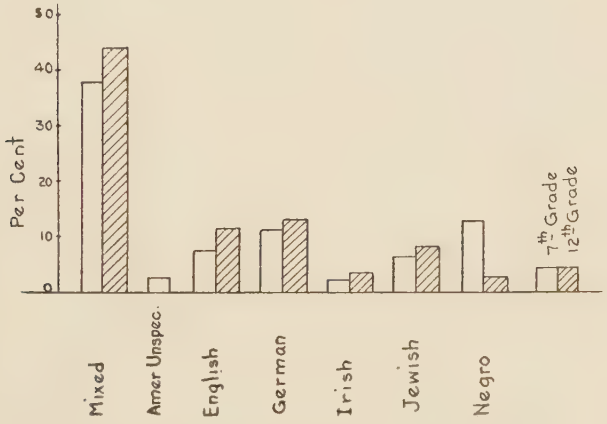


FIG. 10
Per cent of Pupils of Each Ethnic Group in the Seventh and Twelfth Grades.

3. Grade Distribution and Fathers' Occupations

Table XXXI indicates the grade distribution of the children in terms of the fathers' occupations. With few exceptions, fathers engaged in all the occupational groups have children in all the grades. In the third grade, only children whose fathers are in the occupational groups of agriculture, transportation service, and common labor, are found. As in the case of the distribution of children in terms of their eth-

TABLE XXXI

NUMBER OF PUPILS OF EACH OCCUPATIONAL GROUP DISTRIBUTED AMONG THE GRADES OF THE SCHOOL SYSTEM

Grade	Fathers' Occupation	Proprietors	Professional	Managerial	Commercial	Clerical	Agricultural	Artisan-Proprietors	Building Trades	Machine Trades	Printing Trades	Miscelleanous Trades	Transportation	Public Service	Personal Service	Common Labor		Unknown		Total
3							1						1			1				3
4		1					4				1		1	1		2				10
5		4	1	4	2	1	4	1	5	3		1	3	1	1	12		4		47
6		12	1	4	1	1	6	2	5	4		1	6	3	3	15		1		65
7		33	14	13	23	6	9	6	14	17		10	9	5	7	12		19		197
8		38	13	28	10	13	7	7	17	16	1	3	6	3	2	7		6		177
9		41	16	13	15	10	10	9	9	15		7	8	4	4	5		6		172
10		35	13	17	19	8	9	7	9	11		3	3		6	2		9		151
11		28	8	20	11	8	10	4	7	11	1	1	5	2		6		2		124
12		27	10	10	6	11	3	4	3	4		1	1	1	3	1		2		87
Total		219	76	109	87	58	63	40	69	81	3	27	43	20	26	63		49		1033

nic origins, there is no way of determining to what extent the children of the various parental occupational groups are proportionately represented among the various grades. To do this, it would be necessary to know the number of children on the basis of the fathers' occupations who ought to be in the secondary school. But as in the previous case, it is possible to see the percentages of the children of each occupational group which make up the various grades. For the same reason as in the former case, the percentages of children in each of three grades are presented in Table XXXII.

TABLE XXXII

PERCENT OF EACH OCCUPATIONAL GROUP IN THREE SCHOOL GRADES

Fathers' Occupations	Below 7th Grade	7th Grade	12th Grade
Proprietors	13.6	16.7	31.
Professional Service	1.6	7.1	11.5
Managerial Service	6.4	6.6	11.5
Commercial Service	2.4	11.7	6.9
Clerical Service	1.6	3.	12.6
Agricultural Service	12.	4.6	3.4
Artisan-Proprietors	2.4	3.	4.6
Building Trades	8.	7.1	3.4
Machine Trades	5.6	8.6	4.6
Printing Trades	.8		
Miscelleaneous Trades in Manufacturing	1.6	5.1	1.2
Transportation Service	8.8	4.6	1.2
Public Service	4.	2.6	1.2
Personal Service	3.2	3.6	3.4
Common Labor	24.	6.1	1.2
Unknown	4.	9.6	2.3
Totals	100.	100.	100.

The foregoing table shows that whereas 16.7 per cent of the children in the seventh grade are children of fathers who are proprietors, 31 per cent of the children in the twelfth grade have fathers in this occupational group. Similar increases in percentages of children in the twelfth grade over

those in the seventh are seen among those whose fathers are in the professions, in managerial service, and in clerical service. With the exception of the children whose fathers are artisan-proprietors, the children whose fathers are in all the other occupational groups show a decrease in the percentages of enrollment in the twelfth grade compared with the seventh. The greatest decrease is among the children whose fathers are common laborers. A decrease of as much as fifty per cent is found generally among those groups in which decreases are evident. It is significant to note that the children of the personal service group tend to hold their own in this comparison, which may or may not be accidental.

The percentage of children of each occupational group enrolled in the twelfth grade shows in some instances a marked contrast to the findings of Counts. This is especially noted among the children of fathers in the personal service and in the common labor groups. Counts[2] found only .9 per cent of the twelfth grade enrollment representing the personal service group, and only .3 per cent representing the common labor group. These percentages are to be compared with 3.4 per cent and 1.2 per cent respectively of the twelfth grade of Cheltenham High School.

The difference in the percentages of the seventh and twelfth grade enrollments may be indicative either of the tendency of the children of some occupational groups to drop out of school, or it may indicate a change in the occupational distribution of the inhabitants of the township over a period of five years. Over three fourths of the total enrollment of the twelfth grade children are children of the following occupational groups: professional service, managerial service, commercial service, and artisan proprietors. These groups contribute but slightly over one-third of the total enrollment of the seventh grade. Figure 11 shows graphically these comparisons.

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[2] Counts, G. S. *The Selective Character of American Secondary Education*, 37.

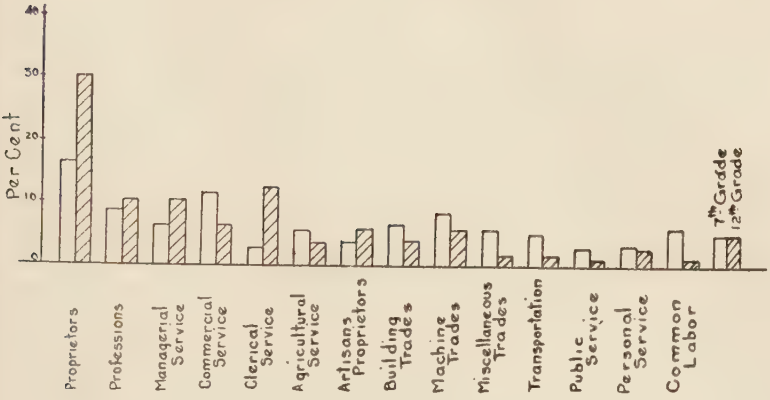

FIG. 11
Percent of Children of Each Occupational Group in the Seventh and Twelfth Grades.

Of the group of children in the grades below the seventh, the group that may be termed "retarded", one fourth are children whose fathers are common laborers. Nearly one half of this group are children of fathers engaged in common labor, in agricultural service, and fathers who are proprietors. This last group shows almost a one hundred per cent increase in the proportion of its enrollment from the seventh to the twelfth grades. Unlike the group of proprietors, the agricultural group has a much smaller percentage in the total enrollment of the twelfth grade as compared with the seventh.

4. Curricula and Intelligence Quotients

The program of studies of the modern secondary school offers a variety of curricula, each designed to meet the needs of the various groups who are enrolled within the school. The curricula which are offered in the Cheltenham High School have been described in a previous chapter. It is the purpose here to note how the secondary school population responds to the various curricula, and to observe whether any tendencies may be found within any of the groups.

Table XXXIII indicates the relationships between the curricula of the school and the intelligence quotients of

those enrolled within each. From this table, it will be seen that the range of intelligence quotients among those enrolled in the academic curriculum is greater than the range of the intelligence quotients among those enrolled in any other curriculum. No intelligence quotient above 129 is found in any of the curricula except the academic. The range of intelligence quotients for each curriculum and the median intelligence quotient of the pupils in each show that which is generally observed,—that in the academic curriculum are children whose intelligence quotients are on the whole higher than those in the other curricula. The lowest median intelligence quotient (98.8) is found among the pupils in the general curriculum which may contain some pupils who have failed in the academic curriculum and who do not care for the practical work of the commercial and practical arts curricula. It may also enroll some who may wish to prepare for institutions of higher learning. In the commercial curriculum, which enrolls the second largest number of students, the median intelligence quotient is 103.4, approximately five points higher than the median of the general curriculum and ten points lower than the median of the academic curriculum. The practical arts curriculum which offers home economics to the girls and industrial arts to the boys shows the second lowest median intelligence quotient—100.6. The range of intelligence quotients of these students is smaller than the range of any of the other curricula, no student is enrolled in this curriculum whose intelligence quotient is above 119. The curriculum whose students show the second highest median intelligence quotient is the fine arts curriculum—108.5. This group is a very small one. Figure 12 shows graphically the range and medians of the intelligence quotients of each of the curricula.

The difference of the intelligence of pupils in the various curricula is further indicated in Table XXXIV.

TABLE XXXIII

INTELLIGENCE QUOTIENTS OF PUPILS IN THE VARIOUS CURRICULA (GRADES 10, 11, 12)

Intelligence Quotients / Curriculum	Academic	Commercial	Fine Arts	Practical Arts	General		Total
80 — 89	2	10		6	7		25
90 — 99	17	21	2	3	17		60
100 — 109	51	25	3	9	10		98
110 — 119	77	20	3	1	8		109
120 — 129	36	3	1		2		42
130 — 139	7						7
140 — 149	1						1
Unknown	11	5		3	1		20
Total	202	84	9	22	45		362
Median Intelligence Quotients	113.3	103.4	108.3	100.6	98.8		

TABLE XXXIV

PERCENT OF PUPILS IN EACH CURRICULUM IN EACH INTELLIGENCE QUOTIENT GROUP

Intelligence Quotients	Academic	Commercial	Fine Arts	Practical Arts	General
Below 90	1.	12.7		31.6	15.9
90—109	35.6	58.2	55.6	63.2	61.4
110—119	40.3	25.3	33.3	5.2	18.2
120—139	22.5	3.8	11.1		4.5
Above 140	.6				
Totals	100.	100.	100.	100.	100.

This table shows that within its group, the practical arts curriculum has the largest percentage of pupils with low

intelligence quotients as compared with the percentage distribution of the other curricula. The academic curriculum has within its enrollment the largest percentage of the highest intelligence quotients. In the practical arts curric-

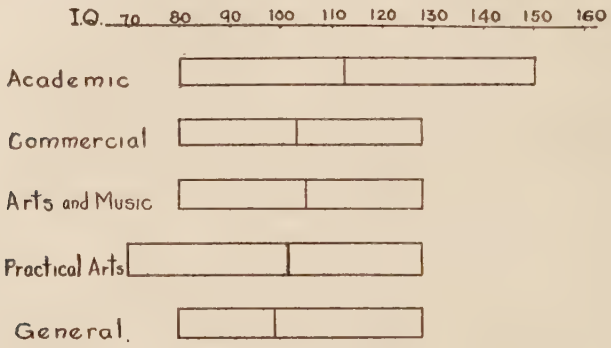

FIG. 12.

Range and Median I.Q's of students in each Curriculum.

Vertical lines indicate medians.

ulum, approximately thirty one out of one hundred pupils have intelligence quotients below 90; in the academic curriculum, one out of a hundred has an intelligence quotient below 90. On the other hand, no pupil who has an intelligence quotient above 120 is enrolled in the practical arts curriculum; in the academic curriculum about twenty three out of a hundred have intelligence quotients above 120. All pupils with intelligence quotients above 130 are found in the academic curriculum. Almost two thirds of the pupils in the academic curriculum have intelligence quotients that place them in groups above the average intelligence. Slightly less than one third of the students in the commercial curriculum and slightly less than one fourth of the students in the general curriculum are above the average in intelligence. Only five per cent of the students in the practical arts curriculum

are above average in intelligence, while almost one third of the enrollment in this curriculum are below average in intelligence. This is not unlike the findings reported in a summary of the Research Bulletin of the Los Angeles High School, which stated that the "scientific and classical courses attract the ablest students, and the group of students completing a home economics course ranks lowest on these intelligence tests".[3]

The wide range of intelligence quotients within each of the various curricula raises the question of the adaptability of the subject matter to the individuals within each group. There is apparently a basis for the consideration of the need to differentiate the content of the curriculum to suit the capacities of the individuals enrolled in each. For example, the subjects of English and the social studies are required of all students in the high school. With the wide range of intellectual abilities, there is apparent need to differentiate the content of those subjects to suit the group and individual capacities that are revealed.

5. Curricula and Ethnic Origins

The relationship between enrollment in the various curricula and the children of the various ethnic groups is seen in Table XXXV. The percentage columns offer comparative bases for considering the various ethnic groups. It is significant that all of the Italian children,—an exceedingly small group—are enrolled in the academic curriculum. Their presence in the college preparatory work together with the demands of the academic curriculum for higher intelligence may in itself reflect the selective character not only of the academic curriculum, but also of the secondary school program. Of the other ethnic groups, the children of Jewish, English, Mixed, and German groups tend to go in largest numbers into the academic curriculum. The children of Irish parentage tend to go into the commercial curriculum,

[3] School Review (Editorial) *"Characteristics of High School Seniors"*, XXXI: 251-2, April, 1923.

TABLE XXXV

CURRICULAR ENROLLMENT OF PUPILS DISTRIBUTED ON BASIS OF ETHNIC ORIGIN

	NUMBER							PER CENT						
	Academic	Commercial	Fine Arts	Practical Arts	General		Total	Academic	Commercial	Fine Arts	Practical Arts	General		Total
Mixed	90	32	5	3	17		147	61.2	21.8	3.4	2.	11.6		100.
American Unspecified	1	2					3	33.4	66.6					100.
English	22	4	1	4	5		36	61.1	11.1	2.8	11.1	13.9		100.
German	17	7		2	5		31	54.8	22.6		6.5	16.1		100.
Irish	2	8		1			11	18.2	72.7		9.1			100.
Italian	3						3	100.						100.
Jewish	21	4	1	1	1		28	75.	14.2	3.6	3.6	3.6		100.
Negro	2	5		5	4		16	12.5	31.2		31.3	25.		100.
Unspecified	44	22	2	6	13		87							
Total	202	84	9	22	45		362							

that type of the school work which is preparatory to wage-earning. The Negro children constitute the largest single ethnic group which is found in the practical arts curriculum; about one third of the Negro girls taking the work in the home economics courses. These two latter groups, enrolled so heavily in the commercial and practical arts curricula may look to the high school as the end of formal education. These two groups, also, showed a significant loss in their proportionate enrollment in the twelfth grade as compared with that in the seventh grade. The general curriculum, which in some instances may be preparatory to higher education although not designed as such, contains in substantial numbers children of English, German, and Negro parentage. For many of these, the high school may be the end of formal education.

6. Curricula and Fathers' Occupations

The relationship between fathers' occupations and the enrollment in the various curricula is shown in Table XXXVI. A study of the percentages indicates that over half of the children whose fathers are proprietors, and who are engaged in professional, managerial, commercial, and clerical services, and those who are artisan-proprietors, are enrolled in the academic curriculum. It is significant that the children whose fathers are in these occupational groups are those who show a gain in their proportionate enrollment in the twelfth grade as compared with the enrollment in the seventh grade. Children whose fathers are engaged in agricultural service, in the building trades, in the machine trades, in the miscellaneous manufacturing trades, and in public and personal services tend to enroll in the commercial curriculum. Children whose fathers are in transportation service, and whose fathers are common laborers go in greatest numbers into the practical arts curriculum. In this curriculum are represented also in significant numbers children whose fathers are clerical workers, artisan-proprietors, and those engaged in the building trades, in the machine trades, in the manufac-

TABLE XXXVI

PUPILS OF EACH OCCUPATIONAL GROUP ENROLLED IN THE HIGH SCHOOL CURRICULA

Enrollment	Proprietors	Professional	Managerial	Commercial	Clerical	Agricultural	Artisan Proprietors	Building Trades	Machine Trades	Printing Trades	Miscellaneous Trades	Transportation	Public Service	Personal Service	Common Labor	Unknown		Total
Academic	65	20	34	21	16	9	8	8	8		1	4	1	1	1	5		202
Commercial	11	2	10	7	4	9	6	7	11		3		2	4	3	5		84
Fine Arts	3	2		2		2												9
Practical Arts	3	2		1	2			1	3			4		2	3	1		22
General	8	5	3	5	5	2	1	3	4	1	1	1		2	2	2		45
Total	90	31	47	36	27	22	15	19	26	1	5	9	3	9	9	13		362
Percentage																		
Academic	72.3	64.5	72.3	58.3	59.3	40.9	53.3	42.1	30.8		20.	44.4	33.4	11.2	11.2	38.5		
Commercial	12.2	6.5	21.3	19.4	14.8	40.9	40.	36.8	42.3		60.		66.6	44.4	33.3	38.4		
Fine Arts	3.3	6.5		5.6		9.1												
Practical Arts	3.3	6.4		2.8	7.4			5.3	11.5			44.4		22.2	33.3	7.7		
General	8.9	16.1	6.4	13.9	18.5	9.1	6.7	15.8	15.4	100.	20.	11.2		22.2	22.2	15.4		
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		

turing trades, and in personal service. In the general curriculum children of fathers engaged in all the occupations are found in varying but small numbers.

If the occupational classification used in this survey is an index of economic level, it may be said that the children whose fathers are in the higher economic levels tend toward the curriculum which is a preparatory agency for higher learning, and those whose fathers are in the lower economic levels tend toward those curricula which aim at wage earning as soon as students leave the high school. Care should be taken, however, in assuming that pupils of certain occupational groups belong in any specific curriculum. No curriculum can claim and none does claim the children of specific occupational groups. No single factor is sufficient basis upon which to determine the value of any of the curricula for a child, or to determine the capacity of a child to secure benefits from any one of the curicula.

7. Subject Failures and Intelligence Quotients

Students fail subjects for many reasons. As long as school success in terms of subject failures is determined by the judgment of teachers, it will probably be very difficult to single out the important factors which cause pupils to fail.

Table XXXVII indicates the range and medians of intelligence quotients of those pupils who did not fail any subjects over a period of three years and as well as of those who failed one or more subjects. As previously indicated the distribution of failures is based on aggregate units over a three year period. It will be seen that the median intelligence quotient of those pupils who did not fail any subject is 111.6, and the median intelligence quotient of those who failed at one time or another is 105.7. A study of the pupil population for the year 1926-27 indicates that the median intelligence quotients of the non-failures was 109.1; of those who failed one or more subjects, 103.4. The significance of the table, however, lies more in a study of the ranges of the intelligence quotients for those who failed than in the medians,

TABLE XXXVII

UNITS OF FAILURE OF PUPILS OF VARIOUS INTELLIGENCE QUOTIENTS

Units of Failure	70 — 79	80 — 89	90 — 99	100 — 109	110 — 119	120 — 129	130 — 139	140 — 149	150 and over	Unknown		Total	Median
None		27	49	104	132	68	19	2	2	2		405	111.6
Less than 1		1	6	7	5	3	1					23	106.4
1 — 1.9	1	10	15	27	14	7				1		75	104.1
2 — 2.9		4	18	24	20	4	3			1		74	106.
3 — 3.9		2	9	15	14	3	2			2		47	107.6
4 — 4.9		3	2	11	8	1						25	106.8
5 — 5.9			5	4	5	1						15	106.2
6 — 6.9		1	4	2	5							12	105.
7 — 7.9		1	3	2	3	1						10	105.
8 — 8.9		1	2	1	1	2	1					8	110.
9 — 9.9	1		1	1	1	1						5	105.
10 — and over		1		3	2							6	103.
Totals	2	51	114	201	210	91	26	2	2	6		705	

themselves. An intelligence quotient of 130 to 139 is no absolute guarantee of successful school work, for there is one case of a failure of as many as eight units in this intelligence quotient group. The table indicates that unless one has an intelligence quotient of 140 or above, there is some chance for failure. Pupils with low intelligence quotients, too, have some chance of pursuing their school work successfully, for a significant number of pupils with intelligence quotients below 100 have no subject failures recorded over a period of three years.

Analyzing the table on the basis of five intelligence quotient groupings, it will be seen that a much larger percentage of pupils with high intelligence quotients are successful in their school work than of those with low intelligence quotients. This is true, too, of pupils studied for the year 1926-27 only. The data regarding this are shown in Table XXXVIII.

TABLE XXXVIII

FAILURE AND NON-FAILURE OF PUPILS OF EACH INTELLIGENCE GROUP

Intelligence Quotients	Percent Not Failing		Percent Failing		Total	
	1 year	3 years	1 year	3 years	1 yr.	3 yrs.
Below 90	61.5	51.	38.5	49.	100.	100.
90—109	70.7	48.6	29.3	51.4	100.	100.
110—119	80.1	62.9	19.9	37.1	100.	100.
120—139	87.8	74.4	12.2	25.6	100.	100.
Above 140	100.	100.	—	—	100.	100.

The evidence from the preceding table indicates that as the intelligence quotients of the pupils become higher, the percentage of pupils failing becomes less. This may be an indication that school subjects as offered at present are of the type which is attractive to the pupil of high intelligence, and does not attract those of low intelligence. This may indicate, too, the need to adapt the content of the subject matter to meet the different intellectual abilities of the pupils.[4]

[4] In Group I, the median intelligence quotient of those who did not fail was 100. The median intelligence quotient of those who failed was 94.6. In Group II, the median intelligence quotient of the non-failing students was 99; of those who failed, 90.9. In each group, a considerably larger number of students with intelligence quotients below 90 failed than those above 90.

TABLE XXXIX

UNITS OF FAILURE OF ETHNIC GROUPS

Units of Failure	Mixed	American Unspecified	English	German	Irish	Italian	Jewish	Negro	Lithuanian	Scotch	Unspecified	Total
None	185	7	39	38	12	3	34	15	2		70	405
Less than one	10			2			3	4			4	23
1 — 1.9	32	1	5	4	2		3	8			20	75
2 — 2.9	27	1	7	4		3	9	3			20	74
3 — 3.9	19		3	2	2	1	6	2		1	11	47
4 — 4.9	8			4	2			6			5	25
5 — 5.9	4		2	2				3			4	15
6 — 6.9	5	2			1						4	12
7 — 7.9	3		1								6	10
8 — 8.9	4		1								3	8
9 — 9.9	1			1				2			1	5
10 and over	2		1								1	6
Total	300	11	59	57	19	7	55	43	2	1	151	705

PERCENT OF EACH ETHNIC GROUP FAILING

	Mixed	American Unspecified	English	German	Irish	Italian	Jewish	Negro
None	61.7	63.7	66.1	66.6	63.2	42.9	61.8	34.9
Less than one	3.3			3.5			5.5	9.3
1 — 1.9	10.7	9.1	8.4	7.	10.5		5.5	18.6
2 — 2.9	9.	9.1	11.8	7.		42.8	16.4	6.9
3 — 3.9	6.3		5.	3.5	10.5	14.3	10.8	4.7
4 — 4.9	2.7			7.	10.5			14.
5 — 5.9	1.3		3.4	3.5				6.9
6 — 6.9	1.7	18.1			5.3			
7 — 7.9	1.		1.7					
8 — 8.9	1.3		1.7					
9 — 9.9	.3			1.9				4.7
10 and over	.7		1.7					
	100	100	100	100	100	100	100	100

Among the children in the elementary grades who are included in this study, there were three in the sixth grade who were not promoted at the end of the school year 1926-27, and three in the sixth grade who were promoted on age for that school year. The intelligence quotients of the first three were in the intervals of 70—79, 80—89, 90—99. The three who were promoted on age had intelligence quotients in the interval 80—89.

8. Subject Failures and Ethnic Origins

Table XXXIX shows the distribution on the basis of ethnic origins of those who failed and those who did not fail any subjects during the three year period. This table shows that with the exception of the children of Italian and Negro parentage, the percentages of the various groups who were successful in school work over the three year period are very similar. In all of the groups, with these two exceptions, approximately three fifths of the pupils had no failures. The Negro children have among their group the greatest percentage of failures, 65.1 per cent; the Italian children, the second largest percentage of failures, 57.1 per cent. It is worth while, however, noting that among the Italian children, there were none who had more than 3.9 units of failure; this, in view of the fact that the Italian children ranked second in the percentage of the groups failing. Similarly, the data show that no Jewish child had more than 3.9 units of failure.

A study of the failures of children of each ethnic group for the year 1926-27 and for the three year period presents some very interesting comparisons. The percentage of pupils not failing any subject on each of these bases, and the rank of each group is shown in Table XL.

TABLE XL

PERCENTAGE OF PUPILS OF EACH ETHNIC GROUP NOT FAILING

Ethnic Group	Percent Not Failing for		Rank of each group	
	One year	Three years	One year	Three years
Mixed Group	78.6	61.7	4	6
American, Unspecified	70.	63.7	7	3
English	74.4	66.1	6	2
German	82.	66.6	2	1
Irish	78.2	63.2	5	4
Italian	81.2	42.8	3	7
Jewish	90.6	61.8	1	5
Negro	57.4	34.9	8	8

It will be seen that the Jewish group ranked first in the percentage of children not failing for a one year period, and fifth for a three year period. The German group ranked second for a one year period and first for the three year period. The Italians ranked third in the percentage of non-failures for a one year period, and seventh for a three year period. The Negro group retained its exact position on both bases, eighth and last. The Lithuanian and Scotch children are omitted from these comparisons because of the small numbers of each.

While the ranking of the various ethnic groups changed considerably when compared on these two bases, the differences among the ethnic groups on the basis of the three year period are very slight, with the exception of the Italians and the Negroes. The differences are so slight that one cannot single out any one ethnic group as markedly superior to any other. The Italian and Negro children, however, show

marked inferiority to the children of the other ethnic groups.[5]

9. Subject Failures and Physical Defects

Table XLI shows the relationship between those who failed subjects and those who had physical defects. Often physical defects have been considered as contributing causes to poor

TABLE XLI

PUPILS WITH AND WITHOUT PHYSICAL DEFECTS FAILING AND NOT FAILING

	No Subjects Failed		One or More Subjects Failed		Total	
	No.	Percent	No.	Percent	No.	Percent
No Physical Defects	178	58.3	127	41.7	305	100.
One or more Physical Defects	227	56.7	173	43.3	400	100.
Totals	405		300		705	

school work. The distribution in Table XLI shows that 58.3 per cent of the pupils who had no physical defects were successful in their school subjects over a period of three years, that 41.7 per cent of the pupils who

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[5] Comparisons of the failures of the pupils who were enrolled in the school for less than three years on the basis of their ethnic origins are unsatisfactory. Many of the ethnic groups were represented by one or two pupils. The following are the percentages of pupils in each ethnic group who failed during the period in which they were enrolled in the school.

Group I			Group II		
Mixed	43.	(7)	Mixed	63.	(11)
American, Un.	0	(2)	American Un.	100	(1)
Italian	33⅔	(6)	English	33⅔	(3)
German	33⅓	(3)	German	66⅓	(6)
English	100⅓	(2)	Irish	100	(1)
Negro	66⅔	(3)	Italian	0	(1)
Scotch	0	(1)	Negro	100	(2)
			Scotch	100	(1)

The figures in the parentheses indicate the number in each group.

had no physical defects failed one or more subjects over this period. Of those who had one or more physical defects, 56.7 per cent were successful in their school work, and 43.3 per cent failed one or more subjects over the three year period.[6] These percentages indicate that the presence of physical defects is not a serious handicap to successful school work. This is the general opinion of Ayres, who stated that the"bearing of physical defects on school retardation does not appear to be very great."[7]

10. Subject Failures and Employment outside of School

The effect of employment outside of school upon success in school subjects has been a much discussed question. Employment outside of school by school children has been considered both an incentive and a handicap to successful school work. Table XLII shows the relationship between the pupils

TABLE XLII

PUPILS EMPLOYED AND NOT EMPLOYED OUTSIDE OF SCHOOL FAILING AND NOT FAILING

	No Subjects Failed		One or More Subjects Failed		Total	
	No.	Percent	No.	Percent	No.	Percent
Not working	281	60.3	185	39.7	466	100
Work after school	28	73.7	10	26.3	38	100
Work during vacation	56	47.8	61	52.2	117	100
Work after school and during vacation	40	47.7	44	52.3	84	100
Totals	405		300		705	

who were employed outside of school at the time the material for this study was collected and their success in school over a three year period.

From this table, it will be seen that with the exception of those children who are employed after school but at no other

[6] In Group I, 54.5 per cent of those without physical defects were successful in all their school work during the period in which they were in school; 48.3 per cent of those who had physical defects were successful in all their school work. In Group II, one fourth of those without physical defects did not fail any subject; 35.7 per cent of those with physical defects did not fail.

[7] Ayres, L. P. *Laggards in Our Schools*, 120.

time, the percentage of those children who are not working and who failed no school subjects is greater than of those who are working and who are successful in their school work. The average percentage of all workers who are successful in school work is 51.9. This is almost ten per cent lower than the percentage of non-workers who are successful in school work.[8] The evidence indicates that of those children who are not employed, a greater number do not fail school subjects than of those who are employed either after school, and during vacation, and at both times.

11. Conclusions

1. With the exception of the sixth grade children, there is no appreciable difference between the median intelligence quotients of the children in the various school grades. All the medians fall within the interval 105—110. The intelligence quotients of the middle fifty per cent of pupils in each grade indicate that there is a smaller percentage of pupils with low intelligence in the eleventh and twelfth grades than in the other secondary school grades. Differences of intelligence exist among the students enrolled in the various curricula. The median quotients of students in each curriculum shows that the academic group is the highest, and the general group is the lowest. Excepting those in the fine arts curriculum,whose numbers are very few, the median quotient of the students in the commercial group is second highest, and in the practical arts group, third. The distribution within each curriculum shows that the academic students have the largest percentage of high intelligence quotients, and that the practical arts curriculum has the largest percentage of low intelligence quotients.

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8 In Group I, of those who were not employed in some work outside of school, 35 per cent failed at one time or another. The one boy who worked regularly after school was a failing student. Of those who worked during vacation, 60 per cent failed, and of those who worked both after school and during vacation, 84 per cent failed. In Group II, two thirds of those who were not employed at all failed; three fourths of those working after school and three fourths of those working during vacation failed; and less than two-thirds of those who worked both after school and during vacation failed.

2. Children with both low and high intelligence quotients fail school subjects. The median intelligence quotient of those who failed is lower than of those who did not fail. Of those students who failed, a larger percentage of the low intelligence group failed than of the high intelligence group.

3. Children of all ethnic groups were found in all the school grades. Certain of the groups, however, have a larger percentage of the total enrollment in the twelfth grade than in the seventh. Among these were the children of Mixed ethnic groups, of English, of German, and of Jewish origins. The children of the Italian and Negro groups decreased in their percentages of total enrollment in the twelfth grade as compared with the seventh. The children of those ethnic groups which show such a large percentage of the total enrollment in the twelfth grade tend to go in largest numbers into the academic curriculum. The children of Irish and Negro groups tend to go in largest numbers into those curricula which prepare more definitely for wage-earning upon graduation from high school.

4. Children of all the ethnic groups failed school subjects. Italian and Negro children failed in greater proportions than any other group.

5. Children whose fathers were proprietors, artisan-proprietors, and who were in managerial, professional, and clerical services, increased in their percentages of the total enrollment of the twelfth grade as compared with the seventh. The children of all the other occupational groups decreased in these comparative percentages. Similarly, the children of the first mentioned occupational groups were found in largest numbers in the academic curriculum, while the children of the other occupational groups were found in largest numbers in the other curricula.

6. Children with physical defects were successful in school subjects in approximately the same numbers as those without physical defects.

7. A larger percentage of non-working pupils did not fail any school subject than of working pupils.

CHAPTER VII

PLANS FOR FUTURE AND OTHER FACTORS

Although pupils' expressions of plans for the future may be temporary and uncertain, it is of some importance to see what relationships exist between these expressed hopes and certain factors of their personal capacity and environment.

1. Expectation to Graduate from High School and Intelligence Quotients

Table XLIII and Figure 13 indicates the intelligence quotients of those who expect to graduate from high school. It will be seen that there is a large difference in the median intelligence quotients of both boys and girls of those who say they expect to graduate from high school and those who say they do not. The median quotients of boys and girls separately who expect to graduate was approximately 108; of those who did not expect to graduate, the median intelligence quotients were respectively 91.1 and 95.5 for the boys and girls. This may be an evidence that the school work in which the children are engaged is of such nature in content and in procedure as to attract the children of higher intelligence and not those of low intelligence.

Analyzing this table in another way, it can be seen that a larger percentage of children with high intelligence quotients expect to graduate from high school than of children

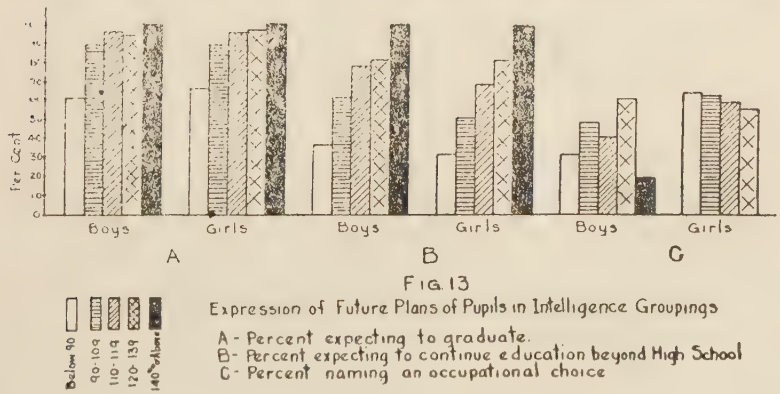

FIG. 13

Expression of Future Plans of Pupils in Intelligence Groupings

A - Percent expecting to graduate.
B - Percent expecting to continue education beyond High School
C - Percent naming an occupational choice

TABLE XLIII

DISTRIBUTION OF BOYS AND GIRLS EXPECTING TO GRADUATE FROM HIGH SCHOOL ON BASIS OF INTELLIGENCE QUOTIENTS

	Boys					Girls					
Intelligence Quotients	Yes	No	Undecided	Unspecified	Total	Yes	No	Undecided	Unspecified	Total	Total of Boys and Girls
Below 70 (69)	1				1						1
70 — 79	3	3	1		7	4	3	1		8	15
80 — 89	36	19	2	1	58	32	10	2	3	47	105
90 — 99	74	14			88	77	10		2	89	177
100 — 109	113	7			120	132	12		1	145	265
110 — 119	114	2	1		117	129	2	1	1	133	250
120 — 129	49	2	1		52	50		1		51	103
130 — 139	16				16	13				13	29
140 — 149	4				4						4
150 and Above	1				1	1				1	2
Unknown	32	18		2	52	19	8	2	1	30	82
Total	443	65	5	3	516	457	45	7	8	517	1033
Median	108.1	91.1				108.	95.5				

with low intelligence quotients. These data are presented in Table XLIV.

TABLE XLIV
GRADUATION EXPECTATIONS OF PUPILS IN EACH INTELLIGENCE GROUP

Intelligence Quotients	Percent expecting to graduate		Percent not expecting to graduate		Percent undecided and unspecified		Totals	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Below 90	60.6	65.5	33.3	23.6	6.1	10.9	100.	100
90—109	89.9	89.3	10.1	9.4	—	1.3	100.	100
110—119	97.5	97.	1.7	1.5	.8	1.5	100.	100
120—139	95.6	98.4	2.9	—	1.5	1.6	100.	100
Above 140	100.	100.					100.	100

The foregoing table shows that one third of the boys and almost one fourth of the girls who have intelligence quotients below 90 do not expect to graduate from high school. Over nine tenths of the boys and the girls who have intelligence quotients above 90 expect to graduate from high school. The distribution indicates that pupils of normal intelligence and better look forward to high school graduation in considerably larger numbers than pupils with less than normal intelligence.

2. Expectation to Graduate from High School and Ethnic Origins

There is a feeling that certain ethnic groups are more vitally interested in the education of their children than othe groups. Among some ethnic groups, children may be encouraged to think more about their education than among others. Table XLV indicates the relationship existing between the expectation of children to graduate from high school and their ethnic origins.

TABLE XLV
GRADUATION EXPECTATIONS OF PUPILS IN EACH ETHNIC GROUP

Ethnic Group	Expecting to graduate		Not expecting to graduate		Undecided and Unspecified		Totals	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Mixed	361	93.2	20	5.2	6	1.6	387	100.
American	18	78.3	3	13.	2	8.7	23	100.
English	81	93.1	6	6.9			87	100.
German	67	73.6	20	22.	4	4.4	91	100.
Irish	27	93.1	2	6.9			29	100.
Italian	20	51.3	15	38.4	4	10.3	39	100.
Jewish	65	98.8	1	1.2			66	100.
Negro	56	74.6	16	21.4	3	4.	75	100.
Lithuanian	5	100.					5	100.
Scotch	5	100.					5	100.
Polish	1	100.					1	100.

The foregoing table indicates that of the Jewish children, 98.8 per cent expect to graduate from high school; of the mixed ethnic groups,93.2 per cent expect to graduate; of the Irish and English groups, 93.1 per cent. The Lithuanian, Scotch, and Polish groups may be omitted from the comparisons. The lowest percentages of children expecting to graduate are found in the Italian, German, and Negro groups in the order named. Since 87.1 per cent of the entire group of children expect to graduate, the children of the Jewish, Irish, English, and mixed ethnic groups are considerably above the average of the group; the children of the other ethnic groups are below the average, and in the case of the Italians, considerably below.

Among the ethnic groups in which it is possible to compare children of first generation parents with children of third or older generation parents, the evidence points to the tendency for the children of the older generations to expect to graduate from high school in larger numbers than the children of first generation parents. Table XLVI shows this information.

TABLE XLVI

GRADUATION EXPECTATIONS OF PUPILS OF FIRST AND THIRD OR OLDER GENERATIONS

Ethnic Groups	Percent having 0 ancestors born in U.S.	Percent having 5 or 6 ancestors born in U. S.
Mixed	88.8	97.1
English	90.5	93.2
German	61.1	86.2
Irish	80.	100.
Jewish	95.2	100.

The previous table shows that in some cases the percentages of children of first and third or older generations expecting to graduate from high school are very close. This is the case among the English and the Jewish groups. Among the German and the Irish, a much larger percentage of children of the older generations expect to graduate than of the first generation parents. All of the Irish and Jewish children of the older generations expect to graduate.

3. Expectations to Graduate from High School and Fathers' Occupations

The occupation of the father may often be an influencing factor in setting the goal for the education of the child. It may be decisive in providing the economic opportunity which permits children to continue in high school beyond the compulsory school attendance period, and thus influencing children's hopes to graduate from high school.

Table XLVII shows the distribution of those expecting and not expecting to graduate on the basis of fathers' occupations.

TABLE XLVII

GRADUATION EXPECTATION OF PUPILS IN EACH OCCUPATIONAL GROUP

Occupations of fathers	Expecting to graduate		Not expecting to graduate		Undecided and Unspecified		Totals	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Proprietors	211	96.3	6	2.7	2	1.	219	100.
Professional Service	74	97.4	1	1.3	1	1.3	76	100.
Managerial Service	102	93.5	6	5.5	1	1.	109	100.
Commercial Service	83	95.4	4	4.6			87	100.
Clerical Service	53	91.4	4	6.9	1	1.7	58	100.
Agricultural Service	50	79.4	12	19.	1	1.6	63	100.
Artisan-Proprietors	38	95.	2	5.			40	100.
Building Trades	51	73.9	16	23.2	2	2.9	69	100.
Machine Trades	67	82.7	11	13.6	3	3.7	81	100.
Printing Trades	3	100.					3	100.
Miscellaneous Trades	21	77.8	5	18.5	1	3.7	27	100.
Transportation Service	34	79.1	6	13.9	3	7.	43	100.
Public Service	14	70.	4	20.	2	10.	20	100.
Personal Service	20	76.9	5	19.2	1	3.9	26	100.
Common Labor	41	65.1	17	27.	5	7.9	63	100.

The above table indicates that 97.4 per cent of the children whose fathers are in professional service, 96.3 per cent of the children whose fathers are proprietors, and so on expect to graduate. The two occupational groups which have the lowest percentage of children expecting to graduate are the common laborers (65.1 per cent) and those engaged in public service, (70 per cent). Since 87.1 per cent of the group expect to graduate, children whose fathers are proprietors, artisan-proprietors, and who are engaged in professional, managerial, commercial, and clerical services, and who are in the building trades, are all above the average of the group. This compares very well with the percentages of children of the occupational groups who were enrolled in the last year of the senior high school. Children whose fathers were in the other occupational groups were all below the average of the entire group.

4. Expectation to Graduate from High School and Subject Failures

It may be worth while to see the relationship existing be-

tween those who failed subjects and those who expected to graduate from high school. In this relationship, there is no certainty of a causal connection. One may expect not to graduate from high school because he may have failed subjects, or one may fail subjects because he does not expect to graduate from high school.

Of those who expected to graduate from high school, 54.8 per cent did not fail any subjects over a three year period; 45.2 per cent failed one or more subjects. Of those who did not expect to graduate, 45 per cent failed no subjects; 55 per cent failed in one or more subjects. On the other hand, of those who failed no subjects over a three year period, 96.8 per cent expected to graduate; of those who failed one or more subjects during the three year period, 95.3 per cent expected to graduate. The evidence indicates that failure in school does not in any great degree effect the pupils' desires to graduate. The detailed study of these relationships indicates that a smaller percentage of pupils who had less than one unit of failure over a three year period expected to graduate than of those who had a larger number of units of failure. In the cases of those pupils who had three, six, and seven units of failure, the entire number expressed the expectation to graduate. The smallest percentage of students who failed and who expected to graduate had failed 9 to 9.9 units; sixty per cent of this group expected to graduate.

The study of the entire group of secondary school pupils for the year 1926-27 only shows that of those who had no subject failures, 92.4 per cent expected to graduate; of those who had one or more subject failures, 85.3 per cent expected to graduate. While these percentages differ slightly from those on a three year period, the tendency indicates that little relationship exists between failure in school subjects and expectation to graduate from high school.[1]

[1] In Group I, 41.2 per cent of those expecting to graduate from high school did not fail any subject; 52.4 per cent of those not expecting to graduate from high school did not fail. In Group II, 24 per cent of those expecting to graduate did not fail, while 46.1 per cent of those not expecting to graduate did not fail. On the other

TABLE XLVIII

INTELLIGENCE QUOTIENTS OF BOYS AND GIRLS EXPECTING TO CONTINUE AND NOT TO CONTINUE EDUCATION AFTER LEAVING HIGH SCHOOL

	Boys					Girls					
	Yes	No	Undecided	Unspecified	Total	Yes	No	Undecided	Unspecified	Total	Total Boys and Girls
Below 70 (69)		1			1						1
70 — 79	3	4			7	1	7			8	15
80 — 89	21	33		4	58	16	24	2	5	47	105
90 — 99	50	34		4	88	42	43	2	2	89	177
100 — 109	80	38	2		120	76	60	3	6	145	265
110 — 119	91	24	2		117	93	30	4	6	133	250
120 — 129	42	8		2	52	42	8	1		51	103
130 — 139	13		1	2	16	10	2		1	13	29
140 — 149	4				4						4
150 and above	1				1	1				1	2
Unknown	20	30		2	52	10	16		4	30	82
Total	325	172	5	14	516	291	190	12	24	517	1033
Median	109.8	99.7				110.6	102.1				

Among those children in the elementary grades who are included in this investigation, 67 per cent of those promoted in 1927 expected to graduate from high school, while only 25 per cent of those not promoted expected to graduate. These children are "retarded," and continuous non-promotions may have a more significant relationship to their expectation to graduate from high school, than in the case of the "normal" secondary school pupils who may fail subjects knowing that in many cases the failure can be removed.

5. Expectation to Continue Education and Intelligence Quotients

As in the previous section, pupils' expectations to continue education after leaving high school are related to intelligence quotients, to ethnic origins, and to the occupations of the fathers. Whether there are causal connections between these factors or not, one cannot say. The relationships that are revealed, as in the previous section, may be helpful in administering the school curriculum and the program of guidance.

Table XLVIII and Figure 13 show the intelligence quotients and medians for those students who expect to continue their education after leaving high school, and for those who do not. The median intelligence quotients of the boys and girls who expect to continue their education after leaving high school are 109.8 and 110.6 respectively; for those who do not expect to continue their education, the median quotients are 99.7 for the boys and 102.1 for the girls. These quotients do not vary greatly from those of boys and girls who expect and do not expect to graduate from high school. The latter are slightly lower, yet they fall within the same intelligence level groups.

Analyzing this table in another way, it can be seen that the percentages of children with high intelligence quotients

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hand, 35 per cent of those in Group I who did not fail expected to graduate from high school, One half of those who failed expected to graduate. In Group II, 46.2 per cent of those not failing expected to graduate, and 70.4 per cent of those who failed expected to graduate. These figures are significant in view of the fact that the entire group of pupils withdrew from school in less than three years, and accordingly not one realized his expectations to graduate from high school.

who expect to continue their education are larger than the percentages of those with low intelligence quotients.

TABLE XLIX

CONTINUATION OF EDUCATION BY PUPILS IN EACH INTELLIGENCE GROUP

Intelligence Quotients	Percent expecting to continue		Percent not expecting to continue		Percent undecided and unspecified		Totals	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Below 90	36.4	30.9	57.5	56.4	6.1	12.7	100.	100
90—109	62.5	50.5	34.6	44.	2.9	5.5	100.	100
110—119	77.8	69.9	20.5	22.6	1.7	7.5	100.	100
120—139	80.8	81.3	11.8	15.6	7.4	3.1	100.	100
Above 140	100.	100.					100.	100

From table XLIX, it can be seen that pupils with intelligence quotients below 90 expect to continue their education in relatively small numbers. Approximately one third of the boys and the girls who have intelligence quotients below average stated such expectation. As the intelligence quotients become higher, the percentages of pupils expecting to continue their education increases. Approximately four fifths of those with intelligence quotients that are above average expect to continue their education. These results are not unlike those of Colvin and McPhail who stated: "in the case of each sex, those planning to continue their education rank somewhat higher in intelligence on the average than do those who do not plan to go on."[2] Perhaps this is as it should be. For purposes of guidance, however, those pupils with high and low intelligence quotients who expect to continue their education must be considered differently not only in regard to the possibility of each group continuing education, but also in regard to the kind of further education anticipated.

A wide variation of median intelligence quotients is found among the boys and girls on the basis of the type of further education planned. Overlapping of intelligence quotients among individual students choosing the various types of fur-

[2] Colvin, S. S., and McPhail, A. H. *Intelligence of Seniors in High Schools of Massachusetts*, 7.

ther education occurred, but in general the medians and the ranges of the middle fifty per cent showed rather sharp distinctions. The widest range of quotients was among those choosing college education. In some cases, the number of students naming a certain type of further education was so small that it was thought undesirable to find medians. Table L shows the intelligence quotients of the middle fifty per cent of students naming the particular type of further education and the median intelligence quotients of each group.

TABLE L

INTELLIGENCE QUOTIENTS OF PUPILS SELECTING CERTAIN TYPES OF FURTHER EDUCATION

Types of Further Education	Ranges of Middle Fifty Percent		Medians	
	Boys	Girls	Boys	Girls
College	103.6—122.6	107.7—122.	112.5	115.1
Night School	98.7—116.9		111.3	
Normal School		102.5—116.9		109.
Commercial School	97.5—115.5	97.2—113.2	105.	105.
Art School		101.4—116.8		109.
Trade School	92.1—109.9		98.5	
Unspecified	94.2—116.3	97.3—114.1	107.	107.

The foregoing distribution shows that the median quotients of both the boys and the girls expecting to go to college are considerably higher than the median quotients of any other group. This bears out the findings of Colvin and McPhail who state that, of the girls planning to go to normal school "the majority are below the intelligence levels of those pupils planning to go to liberal arts colleges and higher technical schools."[3]

The spread of the middle fifty per cent shown in the previous table is an indication too of the superiority on the basis of intelligence of those people planning to go to college over those planning other educational futures. The need for guidance in the individual cases is brought out distinctly by considering the intelligence quotients of the middle fifty per cent of each group. It is certain that many of the students

[3] ibid 38.

will find realization of their educational plans extremely difficult. This is especially true of the group with intelligence quotients below 100 who are planning to go to college,

TABLE LI

EXPECTATION TO CONTINUE EDUCATION OF PUPILS OF VARIOUS ETHNIC GROUPS

Ethnic Group	Expecting to continue		Not expecting to continue		Undecided and Unspecified		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Mixed	255	65.9	111	28.7	21	5.4	387	100.
American Unspec.	10	43.5	11	47.8	2	8.7	23	100.
English	63	72.4	21	24.2	3	3.4	87	100.
German	53	58.2	35	38.5	3	3.3	91	100.
Irish	6	20.7	22	75.9	1	3.4	29	100.
Italian	11	28.2	28	71.8			39	100.
Jewish	61	92.5	3	4.5	2	3.	66	100.
Negro	30	40.	36	48.	9	12.	75	100.
Lithuanian	2	40.	3	60.			5	100.
Scotch	1	20.	4	80.			5	100.
Polish	1	100.					1	100.
Unknown	123	54.7	88	39.1	14	6.2	225	100.
Totals	616	59.6	362	35.1	55	5.3	1033	100.

and who fall in the lower quartile of the distribution. Among these students there are evidently many whom it should be the duty of the administrators and counselors to guide away from their expected futures.

6. Expectation to Continue Education and Ethnic Origins

Table LI shows the distribution of children of the various ethnic groups who expect and do not expect to continue their education after leaving high school. Table LI shows that the children of Jewish, English, and Mixed groups plan to continue their education in larger numbers than the average of the group as a whole. The children of all the other groups have smaller percentages planning to continue education than the average of the group. The Jewish group ranks the highest in its percentage, the Irish group ranks the lowest. The Lithuanian, Scotch, and Polish

groups may be excepted from the comparisons.

A further analysis of the children of the ethnic groups who plan to continue their education may be made on the basis of first generation children or older generation children. Such an analysis shows that in some cases a larger percentage of the first generation children plan to go on than of third or older generation children. Table LII supplies this information.

TABLE LII

EDUCATIONAL EXPECTATION OF CHILDREN OF FIRST AND THIRD OR OLDER GENERATIONS

Ethnic Group	Percent having no ancestors born in U. S.	Percent having 5 and 6 ancestors born in U. S.
Mixed	51.1	74.4
English	81.	73.2
German	32.3	75.8
Irish	20.	66.6
Jewish	90.5	80.

The above table indicates that among the English and Jewish ethnic groups, the children of first generation parents expect to continue their education in larger numbers than the children of the older generation, although the difference in percentages is small. Among the other ethnic groups the differences in percentages favoring the children of third generation or older parents are much larger, and perhaps more significant in indicating a tendency resulting from longer stay in this country.

7. Expectation to Continue Education and Fathers' Occupations

Table LIII indicates the number of children who expect to continue education on the basis of the fathers' occupations. As in the previous chapter, the fathers' occupations may be indices of the economic opportunity which permits children to continue education after leaving high school, rather than forcing them to go to work.

TABLE LIII

EDUCATIONAL EXPECTATIONS OF CHILDREN OF THE OCCUPATIONAL GROUPS

Occupations of fathers	Expecting to continue		Not expecting to continue		Undecided and unspecified		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Proprietors	172	78.5	42	19.2	5	2.3	219	100.
Professional Service	66	86.8	4	5.3	6	7.9	76	100.
Managerial Service	84	77.1	24	22.	1	.9	109	100.
Commercial Service	63	72.4	18	20.7	6	6.9	87	100.
Clerical Service	33	56.9	20	34.5	5	8.6	58	100.
Agricultural Service	25	39.7	31	49.2	7	11.1	63	100.
Artisan-Proprietor	19	47.5	18	45.	3	7.5	40	100.
Building Trades	32	46.4	32	46.4	5	7.2	69	100.
Machine Trades	36	44.4	43	53.1	2	2.5	81	100.
Printing Trades	2	66.6	1	33.4			3	100.
Miscell. Trades	11	40.8	15	55.5	1	3.7	27	100.
Transportation	21	48.8	20	46.5	2	4.7	43	100.
Public Service	2	10.	14	70.	4	20.	20	100.
Personal Service	11	42.3	14	53.8	1	3.9	26	100.
Common Labor	13	20.6	46	73.	4	6.4	63	100.
Unknown	26	53.	20	40.9	3	6.1	49	100.
Totals	616	59.6	362	35.1	55	5.3	1033	100.

Table LIII indicates that 59.6 per cent of the entire group of students expect to continue their education after leaving high school. With this as a basis, the children whose fathers are in the first four occupational groups listed show percentages considerably in excess of the average in the group, while the children of all the other occupational groups show percentages in most cases much below the average of the group. The printing trades group is excepted because there are only three cases in it. The occupational groups which show percentages above the average in this table are the same groups which showed percentages above the average of the group expecting to graduate from high school, except the occupational groups of clerical service and artisan-proprietors. In general, this group is also the same as that which showed increasing percentages of the total enrollment of the twelfth grade as compared with the seventh grade.

TABLE LIV

OCCUPATIONAL CHOICES OF BOYS DISTRIBUTED ON BASIS OF INTELLIGENCE QUOTIENTS

Intelligence Quotients / Occupations	Proprietors	Professional	Managerial	Commercial	Clerical	Agricultural	Building Trades	Machine Trades	Printing Trades	Miscellaneous Trades	Transportation	Public Service	Personal Service	Common Labor	None	Unspecified		Total
Below 70																1		1
70 — 79		1				1	1					1			3			7
80 — 89		4	1		2	2	5	2		1					39	2		58
90 — 99		14		5	3	2	12	4			1	1			42	4		88
100 — 109		33	5	4	3	1	7	1	2	1	2				60	1		120
110 — 119	2	21	6	4	7		1	1	1		5				68	1		117
120 — 129		27	2	1			1		1		2				17	1		52
130 — 139		5		1				1							8	1		16
140 — 149		1													2	1		4
150and above															1			1
Unknown		3	1			2	3	3		2	3		1	1	30	3		52
Total	2	109	15	15	15	8	30	12	4	4	13	2	1	1	270	15		516
Medians		110.5	111.6	106.2	108.3		96.2				114.				106.			

8. Occupational Choices and Intelligence Quotients

The relationship between the pupils' expressions of choices of occupations and their intelligence quotients is shown in Tables LIV and LV. From these tables it can be seen that the median intelligence quotient of the boys who expressed an occupational choice was 107.2; of the boys who did not express a choice, 106. Of the girls, who expressed an occupational choice, the median intelligence quotient was 106.4;

TABLE LV

OCCUPATIONAL CHOICES OF GIRLS DISTRIBUTED ON BASIS OF INTELLIGENCE QUOTIENTS

Occupations / Intelligence Quotients	Professional	Clerical	Machine Trades	Miscellaneous Trades	Personal Service	None	Unspecified	Total
Below 70								
70 — 79				4		3	1	8
80 — 89	11	14		6		13	3	47
90 — 99	23	24	1	3	1	35	2	89
100—109	42	49		5		48	1	145
110—119	50	26		2		54	1	133
120—129	25	9				15	2	51
130—139	3					10		13
140—149								
150 and above						1		1
Unknown	4	3		3	4	14	2	30
Total	158	125	1	23	5	193	12	517
Medians	110.2	104.7		90.		108.		

of those who did not express a choice, 108. The highest median for those boys who expressed an occupational choice, was for the group who chose transportation service, 114. The second highest was for the group who chose managerial service, 111.6. Both these groups include relatively small numbers of boys. The largest group was that which named some profession as its future occupation, and its median was 110.5. The lowest median was found in that group which named the building trades, 96.2. Many of the occupational choices named were so scattered that the small numbers choosing each made it impossible to estimate medians.

Among the girls choosing an occupation, the largest number named the professions. Of this group the median intelligence quotient was 110.2. The second largest group named the clerical occupations. Of this group, the median intelligence quotient was 104.7. The next group, although a relatively small one, named the manufacturing trades. Of this group, the median quotient was 90.

The tables show that pupils with low and high intelligence quotients have named the same occupational choices in some instances. It is quite likely that pupils with intelligence quotients that are below the point necessary for successful completion of high school and college work cannot realize their expressed hopes of entering a profession. Individual cases of this sort offer many problems in the effective application of the school's guidance program.

The value of information of the sort revealed in this table has been pointed out by Proctor and Ward who stated that pupils who are "better than average ability will tend gradually to approximate their vocational ambitions, while those with below average ability will be more apt to find their ultimate occupations at levels below their high school plans for a life career."[4] In another study, Proctor considers the use

[4] Proctor, Wm. M. and Ward, Helen "Relation of General Intelligence to Persistence of Educational and Vocational Plans of High School Pupils". *Journal of Educational Research,* VII: 277-288, April, 1923.

of psychological tests as an aid in vocational guidance, "as a means of discovering the kinds of occupations that a given high school pupil would probably better avoid."[5]

A further analysis of the information contained in the previous tables and Figure 13 shows that boys with high intelligence quotients named an occupational choice in larger numbers than the boys with low intelligence quotients. Of the boys with intelligence quotients below 90, 31.9 per cent named an occupational choice; of those with intelligence quotients of 90 to 109, 48.5 per cent; of those of intelligence quotients of 110 to 119, 41 per cent; of those between 120—139, 60.3 per cent; of those of 140 or above, 20 per cent. In general, boys with intelligence quotients between 90 and 139 named occupational choices in greater numbers than boys with intelligence quotients below 90 on the one hand, and above 140 on the other. The tendency among girls was different. Among them, the percentage of girls with intelligence quotients below 90 who named an occupational choice was greater than the percentage of those with intelligence quotients above 110. In the case of both sexes, an increasing number of pupils in each of these intelligence groups named an occupation in the professional service group. The general tendency is for a larger number of both boys and girls of low intelligence to choose occupations that are classed in the lower economic levels, and a larger number of both boys and girls of high intelligence to choose occupations in the higher economic levels. Table LVI shows this information.

9. Occupational Choices of Students and Ethnic Origins

Tables LVII and LVIII show the occupational choices of the students on the basis of their ethnic origins. The percentage table indicates that with the exception of the English and the Irish groups, over half of the children of each of the other groups named an occupational choice. Children of all the ethnic groups except the Polish, named an occupation in

[5] Proctor, Wm. M., *The Use of Psychological Tests in the Educational and Vocational Guidance of High School Pupils*, 50.

TABLE LVI

OCCUPATIONAL CHOICES OF PUPILS IN EACH INTELLIGENCE GROUP

Percent

Occupational Choice	Below 90		90—109		110—119		120—139		Above 140	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Proprietors					1.7					
Professional Service	7.6	20.	22.6	27.8	17.9	37.6	47.1	43.7	20.	
Managerial Service	1.5		2.4		5.1		2.9			
Commercial Service			4.3		3.4		2.9			
Clerical Service	3.1	25.5	2.9	31.2	5.9	19.6		14.1		
Agricultural Service	4.5		1.4							
Building Trades	9.1		9.1		.9		1.5			
Machine Trades	3.1		2.4	.4	.9		1.5			
Printing Trades			1.		.9		1.5			
Miscellaneous Trades	1.5	18.2	.5	3.4		1.5				
Transportation Service			1.4		4.3		2.9			
Public Service	1.5		.5							
Personal Service				.4						
No Choice	63.6	29.1	49.	35.5	58.1	40.6	36.7	39.1	60.	100.
Unspecified	4.5	7.2	2.5	1.3	.9	.7	3.	3.1	20.	100.
Totals	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.

TABLE LVII

NUMBER OF PUPILS CHOOSING OCCUPATIONS DISTRIBUTED ON BASIS OF ETHNIC ORIGIN

Ethnic Origin \ Occupational Choice	Proprietors	Professional	Managerial	Commercial	Clerical	Agricultural	Building Trades	Machine Trades	Printing Trades	Miscellaneous Trades	Transportation	Public Service	Personal Service	Common Labor	Unspecified	None		Total
Mixed		120	5	5	50		5	3	1	4	6		1		9	178		387
American Unspecified		3			8		1			1						10		23
English		27		1	8	1	2								1	47		87
German		20	2	2	15	2	6	2	1		2		3		2	34		91
Irish		2			10											17		29
Italian		6			3		2			4				1	4	19		39
Jewish	1	19	4	3	3				2	1					1	32		66
Negro	1	15			7	2	3	5		13	3		2		4	20		75
Lithuanian		1			2					1						1		5
Scotch		1			1		1									2		6
Polish		1			0													1
Unspecified		52	4	4	33	3	11	2		3	2	2			6	103		225
Total	2	267	15	15	140	8	31	12	4	27	13	2	6	1	27	463		1033

TABLE LVIII

PERCENT OF PUPILS CHOOSING OCCUPATIONS DISTRIBUTED ON BASIS OFETHNIC ORIGINS

Occupational choice of children / Ethnic Origin	Proprietors	Professional	Managerial	Commercial	Clerical	Agricultural	Building Trades	Machine Trades	Printing Trades	Miscellaneous Trades	Transportation	Public Service	Personal Service	Common Labor	Unspecified	None	Total	% of each ethnic group choosing occupations
Mixed		31.	1.3	1.3	12.9		1.3	.8	.3	1	1.5		.3		2.4	45.9	100.	54.1
American Unspecified		13.			34.8		4.35			4.35						43.5	100.	56.5
English		31.		1.2	9.1	1.2	2.3								1.2	54.	100.	46.
German		21.9	2.2	2.2	16.5	2.2	6.6	2.2	1.1		2.2		3.3		2.2	37.4	100.	62.6
Irish		6.9			34.5											58.6	100.	41.4
Italian		15.4			7.7		5.1			10.3				2.6	10.2	48.7	100.	51.3
Jewish	1.5	28.8	6.	4.5	4.5				3.	1.6					1.6	48.5	100.	51.5
Negro	1.3	20.			9.3	2.7	4.	6.7		17.3	4.		2.7		5.3	26.7	100.	73.3
Lithuanian		20.			40.					20.						20.	100.	80.
Scotch		20.			20.		20.									40.	100.	60.
Polish (one case)		100.															100.	100.

the professional service group, and in the clerical service group. These two occupational groups were the only groups which were named by children of all ethnic origins. Of the children of each ethnic group naming an occupational choice, the largest number of children of the mixed group, the English, and the Jewish groups named the professions; the largest number of the American unspecified and of the Irish groups named an occupation of clerical service nature. While the largest single percentage of German, Italian, and Negro children named a profession, the largest number of these children naming occupational choices are scattered among the other occupational classes,—generally among the trades. A boy of the Italian group is the only one naming a common labor occupation. Children of the mixed groups, German, and Negro groups are the only ones naming occupations in the personal service group.

10. Occupational Choices and Fathers' Occupations

Tables LIX and LX show the relationship between the occupational choices of the children and the occupations of the fathers. It will be seen that the fathers of the children who did not name any occupational choice represented all the occupational groups. Over 50 per cent of the children whose fathers were engaged in professional service, transportation service, and who were artisan-proprietors, did not name an occupational choice.

Among those who did name occupational choices, the choice of a profession was named by children of all the occupational groups. Fathers who were in the professions constituted the only group in which a large percentage of their children named as their occupational choices the same occupational group as their fathers. In every other case, the largest percentage of children expressed occupational choices different from the fathers' occupations. For the most part, the tables show that occupational choices of the children indicate tendencies for them to rise above the occupational level of their fathers. In a study limited to boys in grades

TABLE LIX

NUMBER OF PUPILS CHOOSING OCCUPATIONS DISTRIBUTED ON BASIS OF FATHERS' OCCCUPATIONS

Child's Choice \ Fathers' Occupations	Proprietors	Professional	Managerial	Commercial	Clerical	Agricultural	Artisan-Proprietors	Building Trades	Machine Trades	Printing Trades	Miscellaneous Trades	Transportation	Public Service	Personal Service	Common Labor	Unknown		Total
Proprietors		1			1													2
Professional	58	29	40	32	19	10	8	13	19	1	5	6	1	8	7	11		267
Managerial	13		1	1														15
Commercial	9			2		1		1	1							1		15
Clerical	20	2	10	11	9	12	6	16	18		8	3	5	5	8	7		140
Agricultural	3				1	4												8
Building Trades	4		2		1	1	4	4	3		1	3	1	2	4	1		31
Machine Trades			1		1	2	1		3	1		1	1		1			12
Printing Trades	2			1							1							4
Miscell. Trades	1		1			2		1	2			2		3	7	8		27
Transportation	2	1	1	1				1	3				2		1	1		13
Public Service				1				1										2
Personal Service						2						1		1	2			6
Common Labor															1			1
None	106	40	51	38	26	24	21	30	29	1	10	27	7	7	27	19		463
Unspecified	1	3	2			5		2	3		2		3		5	1		27
Total	219	76	109	87	58	63	40	69	81	3	27	43	20	26	63	49		1033

TABLE LX

PERCENT OF PUPILS CHOOSING OCCUPATIONS DISTRIBUTED ON BASIS OF FATHERS' OCCUPATIONS

Child's Choice \ Fathers' Occupation	Proprietors	Professional	Managerial	Commercial	Clerical	Agricultural	Artisan-Proprietors	Building Trades	Machine Trades	Printing Trades	Miscellaneous Trades	Transportation	Public Service	Personal Service	Common Labor
Proprietors		1.3			1.7										
Professional	26.5	38.2	36.7	36.7	32.8	15.9	20.	18.8	23.5	33.3	18.5	13.9	5.	30.8	11.1
Managerial	5.9		.9	1.15											
Commercial	4.1			2.3		1.6		1.5	1.2						
Clerical	9.1	2.6	9.1	12.6	15.6	19.	15.	23.2	22.2		29.6	7.0	25.	19.2	12.7
Agricultural	1.4				1.7	6.3									
Building Trades	1.8		1.9		1.7	1.6	10.	5.8	3.7		3.7	7.0	5.	7.7	6.4
Machine Trades			.9		1.7	3.2	2.5		3.7	33.3		2.3	5.		1.6
Printing Trades	1.			1.15							3.7				
Miscell. Trades	.5		.9			3.2		1.5	2.5			4.6		11.5	11.1
Transportation	.9	1.3	.9	1.15				1.5	3.7				10.		1.6
Public Service				1.15				1.5							
Pers. Service						3.2						2.4		3.9	3.2
Common Labor															1.6
None	48.3	52.6	46.8	43.6	44.8	38.1	52.5	43.4	35.8	33.3	37.1	62.8	35.	26.9	42.8
Unspecified	.5	4.	1.9			7.9		12.8	3.7		7.4		15.		7.9
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

seven and eight of the Oakland Schools, Sears found that "boys tend very largely to select some occupation other than that of their own fathers."[6] These tables show the same tendencies, for pupils of all secondary school ages and of both sexes.

11. Conclusions

1. Children who said that they expected to graduate from high school and expected to continue their education after leaving high school had on the whole higher intelligence quotients than those who did not expect to do either. A much larger proportion of students with intelligence quotients above 90 indicated these plans and hopes than of students with intelligence quotients below 90.

2. In naming occupational choices, very little difference existed between the median intelligence quotients of those who named a choice and those who did not. However, among the boys a much larger percentage of students with high intelligence quotients named a choice than of students with low intelligence quotients. Among the girls, the reverse was found, although the differences were not so great. In general, however, pupils with high intelligence quotients named an occupational choice in the professional class, in larger numbers than pupils with low intelligence quotients.

3. On the basis of ethnic origins, children of Jewish, Irish, English, and mixed parentage expected to graduate from high school in larger numbers in proportion to their representation in the total enrollment than the children of the other ethnic groups. Children of these same groups, with the exception of the Irish, expected to continue their education after leaving high school in larger numbers than the children of the other ethnic groups. Among those ethnic groups where comparison was possible, the children of older generations in the United States showed a slightly larger

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[6] Sears, J. B. "Occupations of Fathers and Occupational Choices of 1039 boys in Grades 7 and 8 of Oakland Schools". *School and Society*, I: 750-56. May 22, 1915.

number who expected to graduate from high school than the children of first generation parents. On this basis of ancestry in the United States,the children of mixed, German,and Irish parentage of third generation or more showed a larger number expecting to continue their education after leaving high school than of the first generation parents of these groups. The percentages of children of first generation Jewish and English parents who expect to continue their education are slightly larger than of the third generation parents of these groups.

4. Children whose fathers were in the "more favored" occupational groups expected to graduate from high school in larger numbers than the children whose fathers were in the "less favored" occupational groups. Likewise, the children of fathers in the higher occupational groups expected to continue their education in larger numbers than the children of fathers in the other occupations.

5. Children of all the ethnic groups named occupational choices in both the professional and clerical service groups. Professional service was named as the occupational choices of the largest percentages of children in the mixed, English, and Jewish groups. Occupations in the clerical services were named as choices by the largest percentages of children in the Irish and American, Unspecified groups. Of the children in German, Italian, and Negro groups, the largest percentages named occupational choices in one or another of the trades.

6. With the exception of the children of fathers engaged in professional service, the children as whole showed a tendency to name an occupational choice that was different from their fathers' occupations. The choices of occupations named by the children indicated a desire to rise from the economic level determined by their fathers' occupations.

CHAPTER VIII

MISCELLANEOUS RELATIONSHIPS

1. Relationship between Ethnic Origins and Intelligence Quotients

There have been many investigations of the intelligence levels of children of various nationalities. Previous studies have determined the nationality of the children upon the basis of the fathers' birthplaces. In this investigation, since the usual determination of nationality or ethnic origins has been discarded, comparison of the findings in Cheltenham Township with that of other investigations, will be to a large extent impossible. However for some of the homogeneous groups, such as the Jews, Italians, and Negroes it will be possible to make some comparisons.

The following tabulation shows the ranges and median intelligence quotients of the children of the various ethnic groups.

TABLE LXI

RANGES AND MEDIAN INTELLIGENCE QUOTIENTS OF CHILDREN OF EACH ETHNIC GROUP

Ethnic Group	Ranges of Intelligence Quotients	Median Intelligence Quotients
Mixed Group	70—150	110.5
American Unspecified	80—119	103.9
English	70—149	107.3
German	70—129	104.8
Irish	80—119	104.1
Italian	69—129	89.4
Jewish	80—150	112.9
Negro	70—139	93.2
Lithuanian[1]	80—119	——
Scotch	90—119	——
Polish	80—119	——

[1] Medians for last three ethnic groups omitted because of few cases.

From the above, it will be seen that the range of intelligence quotients is quite large in each of the ethnic groups. One child in each of the Mixed and Jewish groups had an intelligence quotient over 150, and one in the English group

number who expected to graduate from high school than the children of first generation parents. On this basis of ancestry in the United States,the children of mixed, German,and Irish parentage of third generation or more showed a larger number expecting to continue their education after leaving high school than of the first generation parents of these groups. The percentages of children of first generation Jewish and English parents who expect to continue their education are slightly larger than of the third generation parents of these groups.

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German	70—129	104.8
Irish	80—119	104.1
Italian	69—129	89.4
Jewish	80—150	112.9
Negro	70—139	93.2
Lithuanian[1]	80—119	——
Scotch	90—119	——
Polish	80—119	——

[1] Medians for last three ethnic groups omitted because of few cases.

From the above, it will be seen that the range of intelligence quotients is quite large in each of the ethnic groups. One child in each of the Mixed and Jewish groups had an intelligence quotient over 150, and one in the English group

above 140. The one case of a Negro child with an intelligence quotient above 130 is an extreme one, as the next highest quotient in this group falls in the interval between 110—119. In each of these extreme cases,the child was in one of the junior high school grades. The median intelligence quotients of the various groups show in some instances extreme variation. The highest median is in the Jewish group, 112.9; the lowest is in the Italian group, 89.4. These medians compare favorably with the findings in other investigations. For example, May Bere concluded after a survey of foreign groups in certain New York City schools that the results of the National Intelligence Tests and the Pintner Non-language Tests showed "a reliable difference between the performance of Hebrew and Italian groups."[1] Murdoch reported that on the basis of the Pressey Group Intelligence Tests, the order of ranking among children of various ethnic groups was Jews, Negroes, Italians.[2]

It is interesting and perhaps significant, to compare the median intelligence quotients of the children of each of these ethnic groups on the basis of ancestry in the United States. In comparing the median intelligence quotients of the children of first generation parents with those of the third or older generation parents, the differences within each ethnic group may be seen. The data presented in Table LXII shows these median intelligence quotients.

TABLE LXII

MEDIAN INTELLIGENCE QUOTIENTS OF CHILDREN OF FIRST AND THIRD GENERATIONS

Ethnic Group	Median I. Q. No Ancestors born in U. S.	Median I. Q. Six or more Ancestors born in U. S.
Mixed	108.1	111.9
English	111.3	106.5
German	101.5	108.8
Irish	102.5	104.1
Jewish	112.3	125.

[1] Bere, May. *Mental Capacity of Children of Foreign Parentage*, 95.
[2] Murdoch, K. "A study of Race Differences in New York City." *School and Society*, XI: 147-50, January 31, 1920.

From the above tabulation, the American Unspecified group is omitted because there were no children with no ancestors born in the United States. The Italian group was omitted because there were no children with six ancestors born in the United States. The Negro children were omitted because there were no children with no ancestors born in the United States.

With the exception of the children of the English group, the median quotients of all the groups are higher for those children who are of third generation parents than among those of first generation parents. It may be problematical whether the rise in the median intelligence quotients among these children is the result of the Americanizing process, but the children in those homes where the parent language may be spoken either as the primary or as a secondary language may be handicapped in reaching their maximum score on a test that is largely one of language content. None of the groups compared in the above tabulation are marked very much by a foreign language in the home, but a foreign language was spoken in the homes of the Italian, Polish, and Lithuanian children,—all of whom were of first generation parents.

A further analysis of this information presents evidence that some ethnic groups have a larger percentage of their children among those with low intelligence quotients than other groups. Similarly, some of the ethnic groups have a larger percentage of their children among those with high intelligence quotients than others. These data are presented in Table LXIII.

TABLE LXIII
PERCENT OF EACH ETHNIC GROUP IN EACH INTELLIGENCE GROUP

Ethnic Group	Percent					
	Below 90	90—109	110—119	120—139	Above 140	Total
Mixed	7.3	41.2	31.	19.9	.6	100.
American, Unspec.	14.3	61.9	23.8			100.
English	10.6	48.2	27.1	12.9	1.2	100.
German	12.4	56.8	19.7	11.1		100.
Irish	12.	64.	24.			100.
Italian	51.8	40.8		7.4		100.
Jewish	4.8	33.3	41.3	15.9	4.7	100.
Negro	41.	44.3	13.1	1.6		100.
Lithuanian[1]	20.	40.	40.			100.
Scotch[1]		60.	40.			100.
Polish[1]		100.				100.

[1] These groups have each very few cases; hence comparisons are not valid.

The foregoing table indicates that over half of the Italian children, and over forty per cent of the Negro children have intelligence quotients below 90,—that is below normal intelligence. In the case of the Italian children, there may be some direct relationship between these intelligence quotients derived from an intellgience test that is entirely one of language content and the fact that over half of the children come from homes where Italian is the dominant language used. The children of the mixed and Jewish groups are the least numerous among those of less than normal intelligence. These two ethnic groups together with the English are the only groups represented among those with intelligence quotients above 140.

One cannot conclude too positively, from these tabulations, concerning the intelligence of the various ethnic groups. It may be that the people from each group who have immigrated into the United States differed markedly in their intelligence from the people of the same group who remained in their native country.

TABLE LXIV

INTELLIGENCE QUOTIENTS OF PUPILS DISTRIBUTED ON BASIS OF FATHERS' OCCUPATIONS

Fathers' Occupation / I. Q.	Proprietors	Professional	Managerial	Commercial	Clerical	Agricultural	Artisan Proprietors	Building Trades	Machine Trades	Printing Trades	Miscellaneous Trades	Transportation	Public Service	Personal Service	Common Labor		Unspecified		Total
69															1				1
70—79	1		1			3		1				1	2	1	3		2		15
80—89	13	3	2	6	2	7	6	8	8		3	8	5	10	17		7		105
90—99	27	8	15	13	9	12	11	18	24	1	4	12	1	5	9		8		177
100—109	62	18	29	23	24	17	11	15	15	1	9	6	7	3	11		14		265
110—119	73	24	28	24	14	10	8	10	23		8	9	3	1	6		9		250
120—129	23	13	21	11	7	2	3	8	6		2	2		3			2		103
130—139	11	5	6	3	1	1		1									1		29
140—149	2	1				1													4
150 and above		1	1																2
Total	212	73	103	80	57	53	39	61	76	2	26	38	18	23	47		43		951
Unknown	7	3	6	7	1	10	1	8	5	1	1	5	2	3	16		6		82
Total	219	76	109	87	58	63	40	69	81	3	27	43	20	26	63		49		1033
Medians	110.4	113.1	111.6	109.1	107.3	102.7	102.3	102.3	104		106.6	98.3	101.4	91.	92.8				

2. Relationship between Fathers' Occupations and Intelligence Quotients

The following table LXIV shows the number of children within each level of intelligence quotients distributed on the basis of fathers' occupations. It will be seen that the range of intelligence quotients is approximately the same for the children of all the occupational groups. By far the largest number of children with intelligence quotients above one hundred and thirty are found in the four occupational groups that are listed first. If these occupational groups represent economic levels it may be that children with intelligence quotients above one hundred and thirty are found in much greater numbers among the higher economic groups. This general inference is not unlike that found by Pressey and Ralston who stated that a larger percentage of children whose fathers were in the professions and were business executives rated above the group average, than did children of artisans and laborers.[3]

The medians indicate that as a group the children of fathers who are engaged in professional and managerial services and who are engaged as proprietors have intelligence quotients above one hundred and ten. The children of fathers who are engaged in commercial, clerical services and in the various trades, have intelligence quotients within the group of one hundred and one hundred and ten. At the extreme lower end of the intelligence scale, are children whose fathers are in transportation service, personal service, or common laborers.

Analyzing this material differently one can see that some occupational groups have a larger percentage of children with low intelligence quotients than with high. This information is presented in Table LXV.

Almost one half of the children whose fathers are engaged in personal service and in common labor have intelligence

3 Pressey, S. L. and Ralston, R. "Relation of General Intelligence to Occupations of Fathers" *Journal of Applied Psychology*, III: 368-73, December, 1919.

TABLE LXV

PERCENT OF EACH OCCUPATIONAL GROUP IN EACH INTELLIGENCE GROUP

Occupational Groups	Percent					
	Below 90	90—109	110—119	120—139	Above 140	Total
Proprietors	6.6	42.	34.4	16.	1.	100.
Professional Service	4.1	35.6	32.9	24.7	2.7	100.
Managerial Service	3.	42.7	27.1	26.2	1.	100.
Commercial Service	7.5	45.	30.	17.5		100.
Clerical Service	3.5	57.9	24.6	14.		100.
Agricultural Service	18.9	54.7	18.9	5.6	1.9	100.
Artisan-Proprietor	15.4	56.4	20.5	7.7		100.
Building Trades	14.8	54.1	16.4	14.7		100.
Machine Trades	10.5	51.3	30.3	7.9		100.
Printing Trades		100.				100.
Miscellaneous Trades	11.5	50.	30.8	7.7		100.
Transportation Service	23.7	47.4	23.7	5.2		100.
Public Service	38.9	44.4	16.7			100.
Personal Service	47.8	34.8	4.4	13.		100.
Common Labor	44.7	42.5	12.8			100.

quotients below 90. Only four per cent of the children whose fathers are in the professions and slightly more than six per cent of children whose fathers are proprietors are in the group of less than normal intelligence. Approximately one quarter of the children whose fathers are in the professions and one quarter of those whose fathers are in managerial service are in the group with intelligence quotients ranging between 120 and 139. Children in the highest intelligence group have fathers in only four occupational groups,—professional service, proprietors, managerial service, and agricultural service. While these figures present considerable overlapping of intelligence among the children of practically all the occupational groups, the differences are such as to indicate a superiority in the mental capacity of the children of those fathers who are in the "more favored" occupations. These results, in general, are similar to those of Aldrich who found that among high school pupils the "per cent of non-labor groups having intelligence quotients above 100 is greater

than the per cent of labor groups having intelligence quotients above 100."[4]

3. Relationship between Physical Defects and Ethnic Origins

As pointed out previously, Cheltenham Township has within its jurisdiction, two communities of homogeneous ethnic groups,—the Italian community of Edge Hill, and the Negro community of LaMott. In view of this fact, it was thought desirable to find the relationship of physical defects to the children of the various ethnic groups in the hope that the information might be of some aid in determining the emphasis of the preventive and corrective work of the health program of the school.

Table LXVI shows the number of children of each ethnic group having no physical defects, as well as the number of each having one or more physical defects. The following tabulation shows the percentage of each ethnic group having one or more physical defects.

TABLE LXVI

PERCENT OF CHILDREN OF EACH ETHNIC GROUP HAVING ONE OR MORE PHYSICAL DEFECTS

Ethnic Group	Percentage having one or more Physical Defects
Mixed Race Stocks	59
American Unspecified	43
English	80
German	60
Irish	65
Italian	72
Jewish	42
Negro	80
Lithuanian	80
Scotch	100
Polish	100

Excluding the last three groups because of small representation among the population studied, the Negro, English, and Italian children seem to have the largest percentage of phys-

4 Aldrich, J. C. "The Intelligence of High School Pupils", *School Review*, XXXV: 699—706, November, 1927.

ical defectives. All groups have a large number of children with physical defects. Since most of the defects listed were defects involving care given to children's health, one wonders whether those ethnic groups with the greater percentage of their children with physical defects represent also lower economic levels. There is no evidence of this, yet one working within the community knows that the Negroes and the Italians are engaged largely in the occupations of so called lower economic levels.

4. Conclusions

1. While considerable overlapping of intelligence quotients is found among the children of all the ethnic groups the medians in some instances show wide variations between the children of one group and another. The children of the Italian and Negro groups have the lowest median quotients. The children of the Jewish and mixed groups have the highest median quotients. In general, too, among the children within each homogeneous group those who are of third generation parents have on the whole higher median quotients than those of first generation parents. Some ethnic groups have a larger percentage of children with intelligence quotients below ninety than others. This is true especially of the Italian and Negroes. Likewise there are some groups which have a larger percentage of children with intelligence quotients above one hundred and twenty than others. This is especially true of the mixed and Jewish groups.

2. Among the children of the various occupational groups differences of intelligence quotients show that as a group children whose fathers are in the "more favored" occupations have higher intelligence quotients than children whose fathers are in the "less favored" occupations. In spite of this tendency there is considerable overlapping of intelligence quotients among the children of these various groups.

3. Physical defects are found in some degree among children of all ethnic groups. The largest percentage of children of any group having one or more physical defects are children of Italian, Negro, and English parents.

CHAPTER IX

CONCLUSIONS

Out of the analysis of the data collected, certain general conclusions regarding the secondary school enrollment can be made. One of the most outstanding is that the high school must serve as a preparatory agency for further education of its students. Over half of the boys and girls of the last three years of the high school were enrolled in the academic curriculum of the school. A small but significant number was enrolled in the general curriculum, which in some instances may prepare for institutions of collegiate or normal school rank. Almost sixty per cent of the students expressed hopes to continue education after leaving high school. Some of these, of course, will not realize their hopes; others who may not be included in this class now, may change their minds. In either case, the problem of the high school as a preparatory agency together with the problem of necessary guidance is an important one. The vocational function of the high school is also important. Almost one third of the students were enrolled in the commercial and the practical arts curricula, each of which looks toward wage-earning upon the completion of the high school period.

A significant comment should be made concerning the facts regarding the academic students. In the last year of the high school, the percentage of academic students of the entire grade enrollment is higher than the percentage of academic students in the enrollment of the lower grades. The implication may be that the high school is serving best those who are planning to continue their education.

The facts presented do not confirm the popular impression that physical defects are a handicap to successful school work. There seemed to be very little difference in success in passing school subjects among those pupils who had physical defects and those who did not have any. Although a slightly larger percentage of students who did not have physical defects were successful in their school work over a three year

period than of those who did have physical defects,the differences were so slight that one cannot conclude that the presence of physical defects was a handicap to successful school work.

Implicit in the findings regarding the pupils' leisure time activities, is the obligation of the school to provide opportunity for enriching their cultural interests. Attendance at movies of doubtful value seems to have been their chief source of recreation, judging from the returns to the questions concerning their social life. Attendance at theatres and concerts was uncommon. The educational value of the movie is not questioned, but the responsibility of the school in raising the standards of appreciation is apparent. More valuable in the social life of the children, were their frequent contacts with church and Sunday School, and other organizations allied with the church. It is however one of the few outstanding needs met by institutions of the community. A surprisingly small number, only one third, of the pupils availed themselves of public library cards. This points to the need for stimulation of interest in books, and the use and value of libraries either in the school or in the community as sources for reference material and enjoyment.

In line with these somewhat meagre library contacts were the findings regarding magazines in the homes. The so called "quality magazines" appeared only a negligible fifty times. They were far outnumbered by the ladies' fashion magazines and fiction magazines. It is possible that magazines of more cultural and literary value appeared in the homes more frequently than recorded, but the failure to mention them seems to point to the child's lack of awareness of them.

Whether or not the education of the parents does ultimately determine the educational advantages offered to the children, there may be some relationship between the modest education of the largest number of parents and the dearth of cultural opportunities as revealed by the findings. Very few

of the parents, less than one-fifth, were educated in institutions of secondary school rank or higher.

The pupils in the last two years of high school are a more select group than those of the earlier high school years. This is evidenced by the intelligence quotients of the middle fifty per cent of each grade. In spite of this, the median intelligence quotients of the children in grades seven to twelve inclusive were approximately the same.

A sharp difference occurs too among the median intelligence quotients of the pupils enrolled in the various high school curricula, in favor of the academic. A difference of approximately fifteen points existed between the median quotient of the academic students and the median quotient of pupils enrolled in the practical arts curricula. This difference in the intelligence of the pupils of the various curricula was further emphasized by the comparative percentages of high and low intelligence quotients, for two-thirds of the pupils in the academic curriculum were of more than average intelligence. Slightly over one fourth of the commercial students and slightly less than one fourth of the general students were of more than average intelligence Only one twentieth of the students in the practical arts curricula were of more than average intelligence. Only one out of a hundred pupils enrolled in the academic curriculum was of less than normal intelligence; thirteen out of a hundred of the commercial students, sixteen out of a hundred general students, and thirty one out of one hundred of the practical arts students were of less than normal intelligence.

High intelligence quotients were no guarantee against the failure of pupils in school subjects. Pupils with both high and low intelligence quotients were successful in not failing any school subject over a three year period. The median intelligence quotient of those pupils who failed at one time or another over a three year period was approximately six points lower than the median intelligence quotient of those who did not fail over the same period. No person with an intelligence quotient of 140 or above failed any school sub-

ject. Both pupils with intelligence quotients below 80 failed at one time or another. In general, however, the pupils with the higher intelligence quotients were successful in greater numbers in their school work than pupils with intelligence quotients below the average. The probability is that pupils with intelligence quotients below the average will fail more than pupils with intelligence quotients that are average or above.

Intelligence of the pupils was a factor in the pupils' own statements of their future plans. Those with high intelligence quotients expressed hopes for graduation from high school and for continuation in other educational institutions in considerably larger percentages than pupils with low intelligence quotients. Although no appreciable difference existed between the median intelligence quotients of those who named an occupational choice and those who did not name one, there were differences among the median intelligence quotients of those pupils who named occupational choices. Those who named choices in the professions and in the other "more favored" occupational groups showed higher median intelligence quotients than those naming occupational choices in other groups.

The data regarding the ethnic origins of the children showed that the school enrollment was largely of native stock, that is they were children whose ancestors had been in the United States for three generations or more. The Italian, Irish, and Jewish children and the very few cases of Lithuanian, Polish, and Scotch origin were of first generation parents. This fact in addition to the fact that the fathers and mothers of considerably more than half of the children were born in the United States implies that the specific school studied is not concerned to any large extent with the problem of the education of children of immigrant parents.

Certain group tendencies among the children of the various ethnic groups can be noted. Certain ethnic groups constitute a larger percentage of the total enrollment of the

last year of the senior high school than the same group constituted in its percentage of the total enrollment of the first year of the junior high school. While the available information does not reveal the representation that each ethnic group should have in each of the high school grades in comparison to its representation in the community, it appears that the children of the Italian and Negro groups drop out of school, while the children of the other ethnic groups, including the mixed, tend to stay in school. These facts may also imply a change in the racial composition of a growing community during the five years elapsing between the seventh and twelfth grades. In general, too, the same ethnic groups which show an increasing percentage of their children in the twelfth grade as compared with the seventh, have the largest percentages of their children enrolled in the academic curriculum. There are two exceptions. The Irish children tend to go into the commercial curriculum, looking toward wage-earning. The three Italian children in the senior high school were enrolled in the academic curriculum. The median intelligence quotients of the children of the ethnic groups which show these general tendencies to remain in school are higher than the median quotients of the children of the other ethnic groups.

Over half of the children had fathers who were engaged in the occupations found at the head of the list devised by Counts. The largest single group were sons and daughters of fathers who were proprietors; the remaining of the fifty per cent were children whose fathers were engaged in professions, in managerial service, in commercial service, and in clerical service. The mothers of approximately six per cent of the children were gainfully employed outside of the home. The mothers were employed in occupations which indicated possible economic pressure in the homes, rather than in occupations in which women seek to combine motherhood with careers.

On the basis of fathers' occupations, group tendencies similar to those of the ethnic groups were revealed. The child-

ren of fathers who were proprietors, and who were engaged in professional, managerial, and clerical services, and who were artisan-proprietors, showed an increase in the percentage of the total enrollment in the twelfth grade as compared with the seventh. The children of all the other occupational groups showed a decrease in these comparative percentages. Similarly the children of these groups which may be said to tend to remain in school were enrolled in the academic curriculum in larger percentages than the children of the other occupational groups. The children of these groups, too, have on the whole higher intelligence than the children of the other occupational groups.

In general, the significant conclusion is that on the basis of intelligence, ethnic origins, and fathers' occupations, the same group remains in school, is enrolled in the school curriculum which is preparatory to further education, and expresses hopes for graduation from high school and continuation in higher institutions. Since the ethnic and occupational groups showing these tendencies are those which have the highest intelligence quotient medians, the implication may be that intelligence rather than ethnic origins and fathers' occupations is the decisive factor.

In conclusion, certain general principles may be advanced. Although differences of a sociological and psychological nature exist among the students of the secondary school, these differences tend to be narrowed as the grades advance, so that the last year of the high school has a more homogeneous group than the first. Three selective factors which seem to be operating are the intelligence of the children, the occupations of the fathers, and the ethnic origins. A further operation of this selectivity is evidenced by the enrollment in the curricula; that is, on the basis of these factors certain well defined groups can be found in each. This selectivity operates also in the statements of the pupils' plans for continued education. Intelligence, fathers' occupations, and ethnic origins are factors which distinguish rather clearly those who expect to graduate from high school and continue their

education and those who do not. Thus it can be seen that psychological and sociological data have value for the analysis and understanding of a school population, and for the sympathetic administration of the school program.

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APPENDIX

OFFICE OF PRINCIPAL
CHELTENHAM HIGH SCHOOL
ELKINS PARK, PENNA.

June 2, 1927.

To the Parents of the Students of Cheltenham High School:

Mr. H. M. Wessel, Chairman of the Social Studies Department in this high school, is making a survey of the backgrounds of the high school population in certain selected schools in the state of Pennsylvania. This survey is undertaken under the auspices of the University of Pennsylvania and of the Research Committee of the Pennsylvania State Educational Association. A part of this study calls for certain information concerning the homes. In working out such a study, it is necessary to have complete information from every home. Of course, this has no personal significance whatever. It is simply a part of an effort to get worthwhile information about the general educational situation so that the schools of the state may better serve the youth of Pennsylvania.

May we ask for your cooperation in filling out this blank and returning it within a day or two? This is very important and we shall be grateful if you can cooperate with us to this extent.

Yours sincerely,

IRK:B

I. R. Kraybill

CHELTENHAM TOWNSHIP PUBLIC SCHOOLS
ADMINISTRATION OFFICE
ELKINS PARK, PENNA.

June 7, 1927

Dear Parent:

Mr. Wessel, the Chairman of the Social Studies Group in the Cheltenham High School, is making a study of the backgrounds of children of high school age which we regard as very valuable. Some of the questions asked may appear personal, but the study is an impersonal study. No names will be used in making the study and there is no attempt to obtain personal information, except for general statistical purposes.

We would appreciate your assistance in this study by giving to your son or daughter, who is a pupil of the Cheltenham Schools, the necessary information in answer to the questions appearing on the questionnaire which he or she brings home with this letter.

Very sincerely yours,

Albert Lindsay Rowland
Superintendent of Schools

R kh
Enc.

INSTRUCTIONS TO TEACHERS

The chief object of this investigation is to discover the social and economic factors which are at the basis of the secondary school population of Cheltenham Township. We believe this information will be very helpful to us in determining the ways by which we can better serve the boys and girls who come to us in our high school. A questionnaire should be filled out by every child who is in our six year high school, and by every child who is 12 years of age and over who is enrolled in the grades throughout our school district.

It should be made clear to the students that this information is strictly confidential, and that it will not be used in any personal connection whatsoever. It might be well to state to the pupils the purpose of this investigation, and impress upon them the necessity for securing accurate information. Their cooperation is absolutely necessary in securing this information.

In a few days, questionnaires will be sent to you for distribution to the pupils which they are to take home so that they can be filled out with the aid of the parents. It is very important that these home questionnaires be accurately filled out, and that the child be impressed with the necessity of securing accurate information in regard to the parents, the family, and the home. A letter to the parents will accompany the second questionaire.

The following specific suggestions should be noted:

1. There are different colored sheets for boys and girls.
2. The questionnaires should be filled out without communication by the children.
3. Where questions can be answered by a YES or NO, the answer should be indicated by underlining one or the other.
4. Each pupil should answer as many questions as he or she feels can honestly be answered.
5. In question 5a, (Questionnaire A), the child should name the specific occupation he or she wishes to enter, if one has been selected. Such occupation as "shipyards", "railroads", etc., do not exist. An answer as "agent", "Engineer" etc. is too general. Please be sure that the child lists the specific occupation in each case.
6. In question 9k, dances should not be construed to include parties in one's home.

7. In question 9l, church or synagogue signifies any religious group that holds regular meetings,—such as Friends (Quaker) Meetings, Ethical Culture Society, etc.
8. Each questionnaire,—the child's and the parents'—should be examined by the teacher after it has been filled out. This is important in order to correct any obvious errors or omissions that have been made. Your help in this will be greatly appreciated.
9. *Note.*.. Will teachers please circle letter C, if the child is colored, and the letter J, if the child is Jewish. This should be done after the questionnaire has been filled out, in order that the children should not become aware of the purpose of thsee letters.

Name ..... School .....
Address ..... Town .....

PUPIL QUESTIONNAIRE

A. Information Regarding Pupils (Where answer is either YES or NO, underline)

1. Age.....years.....months.
2. In what country were you born?.....
   (a) If not born in U. S., when did you come to U. S.?.....
3. Do you expect to graduate from high school? YES NO
   (a) If not, why not?.....
4. Do you expect to continue your education after leaving school? YES NO
   (a) If so, in what type of school or college?.....
5. Have you decided what occupation to enter? YES NO
   (a) If so, name it.....
6. Do you work after school hours for pay? YES NO
   (a) What is your job?.....
7. Did you work for pay during vacation, last summer? YES NO
   (a) What was your job?.....
8. If you had not earned money, could you continue in high school? YES NO
9. Activities outside of school.
   (a) Name the organizations (clubs, church societies, etc.), of which you are a member, such as Boy Scouts, Girl Scouts, etc. .....
   (b) Name the fraternity, sorority, or other secret society of which you are a member.....
   (c) Name the daily newspapers that are in your home.....
   (1) What parts of them do you read?.....
   (d) What magazines are read in your home?.....
   (1) What one do you like best?.....
   (2) What one do you like least?.....
   (e) Name your three favorite books and authors.
   1. .....
   2. .....
   3. .....
   (f) Do you take music lessons? YES NO (1) What kind?.....
   (g) Do you take any other lessons outside of school? (such as golf, dancing, elocution, riding, etc.) YES NO
   (1) What kind?.....

Underline your answer to the following questions

   (h) How often do you go to the movies?
   NEVER ONCE A WEEK MORE OFTEN LESS OFTEN
   (i) How often do you attend plays in a regular theater?
   NEVER ONCE A WEEK MORE OFTEN LESS OFTEN
   (j) How often do you attend concerts (musical performances)?
   NEVER ONCE A WEEK MORE OFTEN LESS OFTEN
   (k) How often do you attend dances?
   NEVER ONCE A WEEK MORE OFTEN LESS OFTEN
   (l) How often do you attend church or synagogue?
   NEVER ONCE A MONTH MORE OFTEN LESS OFTEN

(*m*) How often do you attend Sunday School?
NEVER ONCE A MONTH MORE OFTEN LESS OFTEN
(*n*) Do you have a public library card? YES NO
(*o*) Do you take books from a pay circulating library? YES NO

10. Are you living at home with your parents? YES NO
11. Are you living in the home of someone else, such as relatives, foster parents, guardian, etc.? YES NO
12. Are you living in an institution, such as a home for children? YES NO

(Schedule used in Cheltenham Township)

HOME QUESTIONNAIRE

B. INFORMATION REGARDING FAMILY AND HOME

I. FATHER

1. Is he living?.....
2. In what country was he born?.....
3. If not born in the United States, in what year did he come to this country? .....
4. If not born in the United States, is he a citizen of this country?....
5. What is his racial descent or nationality?.....
(Example: English, Irish, Jewish, French, etc.)
6. In what country was your father's father born?.....
7. In what country was your father's mother born?.....
8. What is your father's occupation? (If he is not living, or is not working now, what was it while he was living and working?).....
9. Does he own PART ALL NONE of his business? (underline)
10. Name below the schools which your father attended? (If he did not complete the school, circle the number which gives the years he attended each.)
   a. Elementary.....Years attended 1 2 3 4 5 6 7 8
   b. High ..... " " 1 2 3 4
   c. College ..... " " 1 2 3 4
   d. Professional (such as law, medical, etc.)
   .....Years attended 1 2 3 4
   e. Other schools..... " " 1 2 3 4
11. Is your father a member of a church? YES NO (underline)
12. Name the community organizations to which your father belongs.
....

II. MOTHER

1. Is she living?.....
2. In what country was she born?.....
3. If not born in the United States, in what year did she come to this country? .....
4. If not born in the United States, is she a citizen of this country?....
5. What is her racial descent or nationality?.....
(Example: English, Irish, Jewish, French, etc.)
6. In what country was your mother's father born?.....
7. In what country was your mother's mother born?.....
8. Is your mother gainfully employed (work for pay)? YES NO
   (*a*) If so, what is her occupation?.....
   (*b*) Does she own PART ALL NONE of her business?

9. Name below the schools which your mother attended. (If she did not complete the school, circle the number which gives the years she attended each.)
   a. Elementary .....Years attended 1 2 3 4 5 6 7 8
   b. High ..... " " 1 2 3 4
   c. College ..... " " 1 2 3 4
   d. Professional (such as law, medical, etc.)
   .....Years attended 1 2 3 4
   e. Other schools..... " " 1 2 3 4
10. Is your mother a member of a church? YES NO (underline)
11. Name the community organizations to which your mother belongs.
    .....

III. BROTHERS AND SISTERS

1. How many older brothers and sisters have you?.....
   (*a*) How many are working?.....
   (*b*) What are their jobs?.....
   (*c*) How many are in high school?.....
   (*d*) How many are in college or professional school?.....
   (1) Name the college or professional school.....
2. How many younger brothers and sisters have you?.....
   (*a*) How many are in high school?.....

IV. THE HOME

1. What language is usually spoken in your home?.....
2. What other languages are spoken in your home?.....
3. Is there a radio in your home? YES NO (underline)
4. Is there a telephone in your home? YES NO (underline)
5. How many rooms does your family occupy? (Do not count bathroom, kitchen, pantry, or laundry). Circle the answer:
   2 3 4 5 6 7 8 9 10 More
6. How many persons occupy these rooms? Circle the answer:
   2 3 4 5 6 7 8 9 10 More
7. Does your family own an automobile which is not a truck?
   YES NO (underline)
8. How many years has your family lived in your present town or township? .....
9. How many servants, such as a cook, a housekeeper, a chauffeur, maid, do you have in your home? (Underline the answer.)
   NONE ONE PART TIME ONE OR MORE ALL THE TIME

V. FOR THOSE LIVING WITH RELATIVES, FOSTER PARENTS OR GUARDIANS, ONLY

1. What is the occupation of your guardian or foster father?.....
2. Does he own PART ALL NONE of his business? (underline)
3. Name below the schools which your foster father attended? (If he did not complete the school, circle the number which gives the years he attended each.)
   a. Elementary .....Years attended 1 2 3 4 5 6 7 8
   b. High ..... " " 1 2 3 4
   c. College ..... " " 1 2 3 4
   d. Professional (such as law, medical, etc.)
   .....Years attended 1 2 3 4
   e. Other schools..... " " 1 2 3 4

4. Is your foster mother gainfully employed (work for pay)?
   YES NO (underline)
   (*a*) If so, what is her occupation?.....
   (*b*) Does she own PART ALL NONE of her business?
5. Name below the schools which your foster mother attended? (If she did not complete the school, circle the number which gives the years she attended each.)

a. Elementary	Years attended	1	2	3	4	5	6	7	8
b. High	" "	1	2	3	4				
c. College	" "	1	2	3	4				
d. Professional (such as law, medical, etc.)	Years attended	1	2	3	4				
e. Other schools	" "	1	2	3	4				

6. Is your foster father a member of a church? YES NO (underline)
7. Is your foster mother a member of a church? YES NO (underline)
8. Name the community organizations to which your foster father belongs: .....
9. Name the community organizations to which your foster mother belongs: .....

(Schedule used in Cheltenham Township)

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